

Natural
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of

Montana Basin Outlook Report March 1, 1998



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Basin Outlook Reports and Federal - State - Private Cooperative Snow Surveys

*For more water supply and resource management information, contact:
See Attached List*

How forecasts are made

Most of the annual streamflow in the Western United States originates as snowfall that has accumulated high in the mountains during winter and early spring. As the snowpack accumulates, hydrologists estimate the runoff that will occur when it melts. Predictions are based on careful measurements of snow water equivalent at selected index points. Precipitation, temperature, soil moisture and antecedent streamflow data are combined with snowpack data to prepare runoff forecasts. Streamflow forecasts are coordinated by Natural Resources Conservation Service and National Weather Service hydrologists. This report presents a comprehensive picture of water supply conditions for areas dependent upon surface runoff. It includes selected streamflow forecasts, summarized snowpack and precipitation data, reservoir storage data, and narratives describing current conditions.

Snowpack data are obtained by using a combination of manual and automated SNOTEL measurement methods. Manual readings of snow depth and water equivalent are taken at locations called snow courses on a monthly or semi-monthly schedule during the winter. In addition, snow water equivalent, precipitation and temperature are monitored on a daily basis and transmitted via meteor burst telemetry to central data collection facilities. Both monthly and daily data are used to project snowmelt runoff.

Forecast uncertainty originates from two sources: (1) uncertainty of future hydrologic and climatic conditions, and (2) error in the forecasting procedure. To express the uncertainty in the most probable forecast, four additional forecasts are provided. The actual streamflow can be expected to exceed the most probable forecast 50% of the time. Similarly, the actual streamflow volume can be expected to exceed the 90% forecast volume 90% of the time. The same is true for the 70%, 30%, and 10% forecasts. Generally, the 90% and 70% forecasts reflect drier than normal hydrologic and climatic conditions; the 30% and 10% forecasts reflect wetter than normal conditions. As the forecast season progresses, a greater portion of the future hydrologic and climatic uncertainty will become known and the additional forecasts will move closer to the most probable forecast.

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Bozeman, Montana

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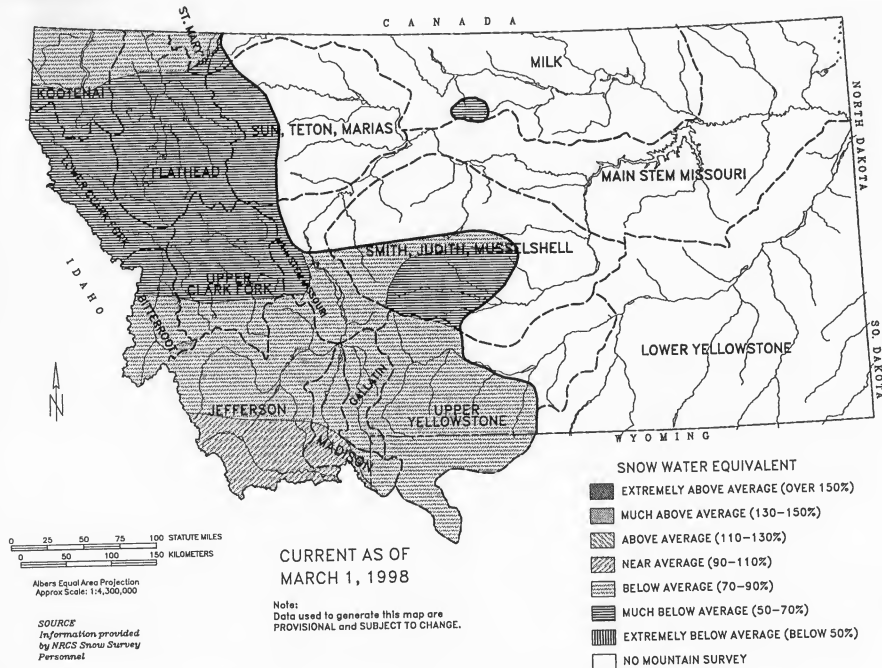
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Lanny Walker
228-4337

Wheatland County
John Oiestad
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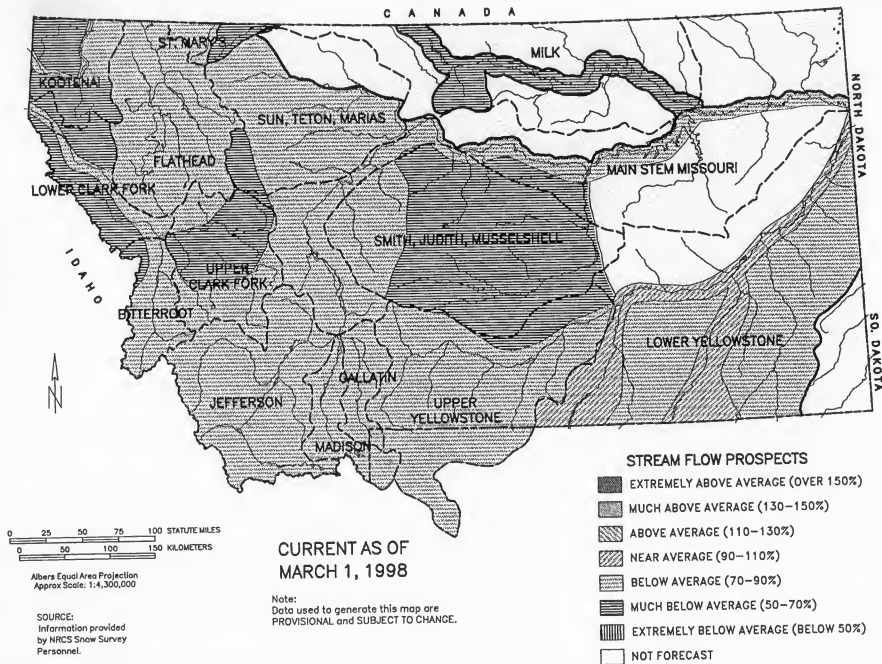
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MOUNTAIN SNOWWATER EQUIVALENT FOR MONTANA

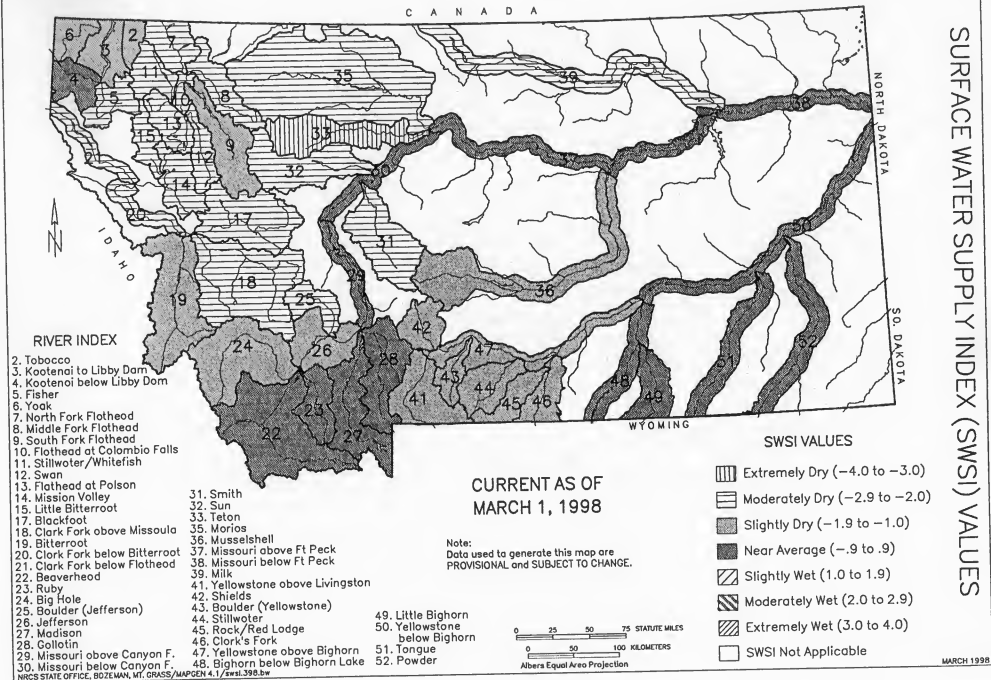








SURFACE WATER SUPPLY INDEX (SWSI) VALUES





BASIN SUMMARY OF
SNOW COURSE DATA

MARCH 1998

SNOW COURSE	ELEVATION	DATE	SNOW DEPTH	WATER CONTENT	LAST YEAR	AVERAGE 1961-90

MONTANA						
ABE LINCOLN	4440	2/26/98	45	14.1	--	--
ABUNDANCE LAKE	8800	3/01/98	---	15.1E	25.0	16.8
ALBRO LAKE PILLOW	8300	3/01/98	---	11.6	23.5	--
AMBROSE	6480	2/26/98	36	8.4	17.9	11.0
ASHLEY LAKE	4000	2/24/98	13	3.1	9.3	6.1
ARCH FALLS	7350	2/26/98	31	7.0	16.0	9.8
ASHLEY DIVIDE	4820	2/24/98	15	4.4	11.7	6.4
BADGER PASS PILLOW	6900	3/01/98	---	18.4	37.1	30.8
BANFIELD MTN PILLOW	5600	3/01/98	---	11.9	22.7	17.4
BAREE MIDWAY	4600	2/24/98	68	20.8	44.7	30.5
BAREE TRAIL	3800	2/24/98	19	5.6	18.2	8.6
BARKER LAKES PILLOW	8250	3/01/98	---	9.0	15.9	12.2
BASIN CREEK PILLOW	7180	3/01/98	---	7.2	8.4	6.5
BASSOO PEAK	5150	2/27/98	25	5.1	14.6	10.0
BEAGLE SPGS PILLOW	8850	3/01/98	---	7.7	10.7	6.8
BEAR BASIN	8150	2/24/98	50	14.6	25.4	17.6
BEAVER CREEK PILLOW	7850	3/01/98	---	13.6	26.8	14.8
BERRY MEADOW	7000	2/23/98	19	3.6	--	6.5
BIG SNOWY	7150	2/24/98	31	8.4	16.6	17.3
BISSON CREEK PILLOW	4920	3/01/98	---	6.8	17.3	9.7
BLACK BEAR PILLOW	7950	3/01/98	---	31.4	51.2	31.7
BLACK MOUNTAIN	7750	2/25/98	46	12.2	17.9	12.2
BLACK PINE PILLOW	7100	3/01/98	---	6.6	14.5	10.5
BLACKTAIL	5650	3/01/98	29	7.8	19.6	12.6
BLOODY DICK PILLOW	7550	3/01/98	---	9.4	17.1	10.7
BLUE LAKE	5900	3/02/98	39	12.0	26.4	22.0
BOTS SOTS	7750	2/23/98	47	7.7	10.6	6.3
BOULDER MTN PILLOW	7950	3/01/98	---	12.9	22.9	17.0
BOX CANYON PILLOW	6700	3/01/98	---	7.2	14.8	8.8
BOXELDER CREEK	5100	2/26/98	19	4.1	6.1	7.4
BRACKETT CR PILLOW	7320	3/01/98	---	14.2	28.4	16.7
BRANHAM LAKES	8850	2/25/98	58	17.5	37.1	24.5
BRUSH CREEK TIMBER	5000	2/26/98	17	4.2	9.8	8.6
BULL MOUNTAIN	6600	2/25/98	19	3.2	8.2	5.2
CABIN CREEK	5200	2/25/98	12	2.8	8.6	6.0
CALL ROAD	8050	3/01/98	---	9.5E	12.9	9.4
CALVERT CR PILLOW	6430	3/01/98	---	6.2	14.7	8.0
CAMP SENIA	7890	2/23/98	39	5.9	7.6	4.6
CARROT BASIN PILLOW	9000	3/01/98	---	20.6	36.4	22.6
CARTER CREEK	7400	2/24/98	24	5.9	6.6	3.9
CHESSMAN RESERVOIR	6200	2/24/98	9	1.8	3.8	3.4
CHICKEN CREEK	4060	2/27/98	36	12.1	23.4	14.3
CLOVER MDW PILLOW	8800	3/01/98	---	13.9	18.9	14.9

SNOW COURSE	ELEVATION	DATE	SNOW DEPTH	WATER CONTENT	LAST YEAR	AVERAGE 1961-90
COLE CREEK PILLOW	7850	3/01/98	---	10.4	13.1	12.9
COMBINATION PILLOW	5600	3/01/98	---	3.5	7.4	5.1
COPPER BOTTOM PILLOW	5200	3/01/98	---	5.2	16.9	10.0
COPPER CAMP PILLOW	6950	3/01/98	---	15.4	36.8	29.8
COPPER CREEK	5700	2/25/98	25	6.5	19.7	13.4
COPPER MOUNTAIN	7700	2/27/98	38	8.5	14.8	9.1
COTTONWOOD CREEK	6400	2/25/98	26	6.2	9.9	6.5
COYOTE HILL	4200	2/26/98	26	7.0	16.2	9.5
CREVICE MOUNTAIN	8400	3/01/98	41	9.9	14.5	9.0
CRYSTAL LAKE PILLOW	6050	3/01/98	---	6.4	11.6	10.7
DAD CREEK LAKE	8400	3/01/98	---	12.0E	15.4	11.0
DAISY PEAK	7600	3/02/98	24	5.1	10.8	9.0
DAISY PEAK	7600	3/02/98	24	5.1	10.8	9.0
DALY CREEK PILLOW	5780	3/01/98	---	8.5	16.9	10.0
DARKHORSE LK. PILLOW	8700	3/01/98	---	20.3	38.4	27.9
DAVIS CREEK	5400	2/27/98	56	18.5	32.6	21.1
DEADMAN CR PILLOW	6450	3/01/98	---	7.2	13.7	8.6
DESERT MOUNTAIN	5600	3/01/98	---	8.2E	20.3	13.2
DISCOVERY BASIN	7050	2/23/98	31	7.7	16.4	8.6
DIVIDE PILLOW	7800	3/01/98	---	8.0	12.3	8.9
DIX HILL	6400	3/01/98	28	7.9	15.1	10.7
DUPUYER CREEK PILLOW	5750	3/01/98	---	2.5	11.5	10.6
EAST FORK R.S.	5400	2/24/98	20	4.6	9.6	6.0
EL DORADO MINE	7800	2/28/98	58	15.4	22.6	16.7
ELK HORN SPRINGS	7800	3/01/98	---	7.0E	12.3	7.8
ELK PEAK	8000	2/23/98	31	7.8	20.2	13.4
EMERY CREEK PILLOW	4350	3/01/98	---	8.8	21.2	14.0
FATTY CREEK	5500	2/25/98	48	13.4	37.2	20.2
FISH CREEK	8000	2/25/98	34	9.0	12.3	7.8
FISHER CREEK PILLOW	9100	3/01/98	---	25.6	49.2	30.3
FIVE-BULL	5700	2/24/98	12	2.9	8.3	5.8
FLATTOP MTN PILLOW	6300	3/01/98	---	30.7	53.9	40.9
FLEECER RIDGE	7500	2/25/98	28	6.0	15.9	9.0
FOOLHEN	8280	3/01/98	---	12.0E	20.8	13.8
FOUR MILE	6900	2/25/98	22	5.6	10.2	7.1
FOURTH OF JULY	3450	2/26/98	23	8.3	15.0	8.6
FREIGHT CREEK	6000	3/02/98	24	6.1	15.4	12.9
FROHNER MDWS PILLOW	6480	3/01/98	---	5.0	8.7	7.2
GARVER CREEK PILLOW	4250	3/01/98	---	8.5	16.1	9.2
GARVER CREEK	4250	2/27/98	27	8.0	17.0	9.9
GOAT MOUNTAIN	7000	2/26/98	17	3.6	13.2	9.2
GRASSHOPPER	7000	2/23/98	19	4.2	9.2	4.9
GRAVE CRK PILLOW	4300	3/01/98	---	12.1	20.1	15.2
GRIFFIN CR DIVIDE	5150	2/27/98	21	4.8	15.0	10.0
HAND CREEK PILLOW	5030	3/01/98	---	6.9	17.7	10.9
HAWKINS LAKE PILLOW	6450	3/01/98	---	15.0	28.4	24.2
HEBGEN DAM	6550	2/24/98	38	10.2	16.2	10.8
HELL ROARING DIVIDE	5770	2/28/98	55	16.0	34.9	26.4
HERRIG JUNCTION	4850	2/26/98	58	18.2	34.1	21.7
HOLBROOK	4530	3/01/98	---	5.4E	15.7	8.8

SNOW COURSE	ELEVATION	DATE	SNOW DEPTH	WATER CONTENT	LAST YEAR	AVERAGE 1961-90
HOODOO BASIN PILLOW	6050	3/01/98	---	27.3	56.6	39.7
INDEPENDENCE	7850	3/02/98	43	12.3	23.6	15.6
INTERGAARD	6450	2/26/98	26	6.2	11.6	6.8
JOHNSON PARK	6450	3/02/98	16	3.6	8.0	6.4
KISHENEHN	3890	2/26/98	22	6.2	12.9	7.5
KIWANIS CAMP	3720	2/26/98	0	.0	1.3	1.8
KRAFT CREEK PILLOW	4750	3/01/98	---	9.4	25.1	14.5
LAKE CREEK	6100	3/01/98	---	7.5E	10.1	7.4
LAKEVIEW CANYON	6930	3/03/98	36	8.6	11.4	9.4
LAKEVIEW RDG. PILLOW	7400	3/01/98	---	9.3	12.7	10.3
LEMHI RIDGE PILLOW	8100	3/01/98	---	8.9	12.4	8.9
LICK CREEK PILLOW	6860	3/01/98	---	8.5	13.7	10.7
LITTLE PARK	7400	2/24/98	41	11.1	22.2	13.4
LOGAN CREEK	4300	2/26/98	16	3.8	10.5	6.7
LONE MOUNTAIN PILLOW	8880	3/01/98	---	13.5	24.2	15.5
LOWER TWIN PILLOW	7900	3/01/98	---	11.1	22.0	15.0
LUBRECHT PILLOW	4680	3/01/98	---	4.5	8.9	5.8
LUBRECHT FOREST NO 3	5450	2/27/98	15	3.4	9.6	6.3
LUBRECHT FOREST NO 4	4650	2/27/98	7	1.4	6.6	3.1
LUBRECHT FOREST NO 6	4040	2/27/98	6	1.2	8.2	3.7
LUBRECHT HYDROPLT	4200	2/27/98	14	3.4	9.6	6.4
MADISON PLT PILLOW	7750	3/01/98	---	17.0	36.4	20.6
MANY GLACIER PILLOW	4900	3/01/98	---	10.4	20.8	14.8
MARIAS PASS	5250	2/26/98	31	10.2	26.5	14.9
MAYNARD CREEK	6210	2/26/98	39	9.0	22.3	12.4
MIDDLE MILL CREEK	7850	2/25/98	39	11.2	20.3	13.5
MILL CREEK	7500	2/27/98	43	10.4	18.2	10.2
MINERAL CREEK	4000	2/27/98	42	14.4	28.0	15.9
MONUMENT PK PILLOW	8850	3/01/98	---	15.5	28.8	17.8
MOSS PEAK PILLOW	6780	3/01/98	---	22.8	53.2	31.4
MT LOCKHART PILLOW	6400	3/01/98	---	13.0	23.1	18.0
MULE CREEK PILLOW	8300	3/01/98	---	11.1	19.8	13.2
NEVADA CREEK PILLOW	6480	3/01/98	---	8.8	18.1	11.2
NEVADA RIDGE PILLOW	7020	3/01/98	---	9.7	16.9	13.7
NEW WORLD	6900	2/25/98	52	10.6	19.2	12.0
NEWTON MOUNTAIN	5600	2/26/98	76	25.4	43.0	29.0
NEZ PERCE CMP PILLOW	5650	3/01/98	---	10.4	19.1	13.0
NEZ PERCE CREEK	6600	2/27/98	24	4.6	11.4	5.9
NEZ PERCE PASS	6570	2/28/98	42	12.2	21.5	14.6
NOISY BASIN PILLOW	6040	3/01/98	---	26.6	57.6	33.7
N.F. ELK CR PILLOW	6250	3/01/98	---	8.2	15.5	10.8
NF JOCKO PILLOW	6330	3/01/98	---	28.4	55.4	39.8
N.E. ENTRANCE PILLOW	7350	3/01/98	---	6.2	11.3	8.1
NOTCH	8500	3/01/98	---	10.6E	16.0	12.4
OPHIR PARK	7150	3/01/98	35	9.3	19.4	14.7
PETERSON MEADOWS	7200	2/24/98	29	7.1	13.0	8.4
PICKFOOT CRK PILLOW	6650	3/01/98	---	6.3	13.6	9.1
PIKE CREEK PILLOW	5930	3/01/98	---	14.2	33.1	22.8
PIPESTONE PASS	7200	2/26/98	18	4.1	7.0	4.1
PLACER BASIN PILLOW	8830	3/01/98	---	12.3	21.6	15.3

SNOW COURSE	ELEVATION	DATE	SNOW DEPTH	WATER CONTENT	LAST YEAR	AVERAGE 1961-90
PORCUPINE PILLOW	6500	3/01/98	---	5.5	11.4	6.1
POTOMAGETON PARK	7150	2/24/98	39	10.5	20.3	12.6
RED TOP	5260	2/26/98	65	21.2	37.6	24.0
REVAIS CREEK	4800	2/24/98	8	1.6	6.0	3.1
ROCK CREEK	5600	2/24/98	23	5.2	8.8	8.7
ROCK CREEK MEADOW	8160	2/27/98	56	15.8	29.9	17.4
ROCKER PEAK PILLOW	8000	3/01/98	---	10.5	15.4	12.6
ROCKY BOY PILLOW	4700	3/01/98	---	3.4	4.8	4.6
ROCKY BOY	4700	2/26/98	10	2.0	3.8	4.0
SACAJAWEA	6550	2/23/98	38	10.6	21.8	11.8
SADDLE MTN PILLOW	7900	3/01/98	---	17.8	33.0	21.9
SHORT CREEK PILLOW	7000	3/01/98	---	5.1	6.0	4.9
SHOWER FALLS PILLOW	8100	3/01/98	---	16.5	27.4	18.8
SILVER RUN PILLOW	6630	3/01/98	---	3.7	5.8	5.2
SKALKAHO PILLOW	7260	3/01/98	---	17.1	32.4	20.8
SLIDE ROCK MOUNTAIN	7100	2/28/98	34	9.5	18.4	13.3
SMUGGLER MINE	6960	2/25/98	27	6.9	11.9	8.6
S.F. SHIELDS PILLOW	8100	3/01/98	---	11.5	25.5	14.2
SPOTTED BEAR MTN.	7000	3/02/98	24	7.6	19.4	13.3
SPUR PARK PILLOW	8100	3/01/98	---	13.7	23.6	18.6
SQUAW PEAK PILLOW	6150	3/01/98	---	9.4	23.5	13.0
STAHL PEAK PILLOW	6030	3/01/98	---	25.7	38.7	30.2
STEMPLE PASS	6600	3/02/98	22	5.0	12.3	8.5
STORM LAKE	7780	2/24/98	38	9.1	15.9	10.8
STRYKER BASIN	6180	2/26/98	70	22.0	38.8	28.5
STUART MOUNTAIN	7400	2/25/98	64	19.8	43.5	27.4
STUART MOUNTAIN PILL	7400	3/01/98	---	19.5	39.1	25.8
SUCKER CREEK	3960	2/26/98	0	.0	.3	.4
TAYLOR ROAD	4080	2/26/98	11	2.3	3.1	3.1
TEN MILE LOWER	6600	2/24/98	18	3.6	9.1	6.3
TEN MILE MIDDLE	6800	2/24/98	25	6.0	12.9	9.5
TEPEE CREEK PILLOW	8000	3/01/98	---	11.2	16.4	10.9
TIMBERLINE CREEK	8850	3/01/98	---	13.7E	18.6	11.5
TIZER BASIN PILLOW	6840	3/01/98	---	8.3	9.6	9.6
TRAIL CREEK	7090	3/01/98	---	6.8E	8.0	6.9
TRINKUS LAKE	6100	3/02/98	71	25.8	55.7	36.7
TRUMAN CREEK	4060	2/24/98	9	2.8	9.0	5.0
TV MOUNTAIN	6800	2/25/98	35	8.2	24.8	15.6
TWELVEMILE PILLOW	5600	3/01/98	---	13.3	24.9	16.4
TWENTY-ONE MILE	7150	3/01/98	44	11.7	23.7	14.9
TWIN CREEKS	3580	3/02/98	18	5.5	18.5	10.7
TWIN LAKES PILLOW	6400	3/01/98	---	28.2	53.6	34.3
UPPER HOLLAND LAKE	6200	3/02/98	66	23.6	45.1	30.4
WALDRON PILLOW	5600	3/01/98	---	6.0	14.0	10.0
WARM SPRINGS PILLOW	7800	3/01/98	---	16.2	25.7	18.2
WEASEL DIVIDE	5450	2/24/98	65	22.2	35.8	29.5
WEST YELLOWSTONE	6700	3/01/98	30	8.7	15.6	10.3
WHISKEY CREEK PILLOW	6800	3/01/98	---	11.7	22.3	14.5
WHITE MILL PILLOW	8700	3/01/98	---	19.1	33.6	21.2
WHITE PINE RIDGE	8850	3/01/98	---	4.8E	7.1	4.4
WILLOW CREEK	6500	2/23/98	20	5.4	8.8	7.1
WOOD CREEK PILLOW	5960	3/01/98	---	4.8	13.0	9.7
WRONG CREEK	5700	2/23/98	22	6.0	15.2	12.0
WRONG RIDGE	6800	2/24/98	30	8.9	19.8	16.6

Montana Water Supply Outlook Report as of March 1, 1998

February did not produce much more than a few isolated snow showers, mainly in northwestern and southwestern Montana. Storms have held true to those expected with the El Nino storm track, with the bulk of the storm energy tracking south of Montana. Temperature departures from normal in the western half of the state were around 5 to 10 degrees above average and in the eastern half of the state were around 10 to 20 degrees above average.

During the last four days of February, there was a storm system that moved across the state and left light to moderate snow accumulations in most areas, except in the eastern plains. In the eastern plains, many roads were closed due to snow and drifting snow.

Snowpack

As of March 1, and with about 85 percent of the winter snowpack in place, mountain snow water content across Montana was 77 percent of average and 51 percent of last year. Even though mountain snowpack increases during February were well below average, mountain snowpack is not yet at a record low. However, the Flathead, Smith-Judith-Musselshell, and Sun-Teton-Marias Basins are the second lowest of record (1961-1997) and the Lower Clark Fork is tied for the third lowest of record. If March snow fall and spring rain is below to well below average in these areas, water shortages may occur mid to late summer.

West of the Continental Divide, snow water content was 73 percent of average and 50 percent of last year. East of the Continental Divide snow water content was 83 percent of average and 57 percent of last year.

Mountain snowpack extremes occur in the Tongue and Milk River Basins. Snow water content in the Tongue River was 98 percent of average and in the Milk River of Montana and Canada was 42 percent of average.

RIVER BASIN	% OF AVERAGE	% OF LAST YEAR
COLUMBIA	73	50
KOOTENAI	77	55
FLATHEAD	70	46
UPPER CLARK FORK	73	50
BITTERROOT	79	52
LOWER CLARK FORK	72	46
MISSOURI	76	53
MISSOURI HEADWATERS	86	56
JEFFERSON	86	57
MADISON	88	57
GALLATIN	85	52
MISSOURI MAINSTEM	60	47
HEADWATERS MAINSTEM	72	55
SMITH-JUDITH-MUSSELSHELL	65	51
SUN-TETON-MARIAS	55	42
MILK	42	39
ST. MARY	78	54
ST. MARY & MILK	65	50
YELLOWSTONE	92	62
UPPER YELLOWSTONE	87	54
LOWER YELLOWSTONE (WYOMING)	96	70
WIND	102	69
SHOSHONE	88	55
BIGHORN	92	65
TONGUE	98	86
POWDER	95	73

Precipitation

February mountain and valley precipitation across the state was 48 percent of average and 51 percent of last year. Water year precipitation was 82 percent of average and 57 percent of last year.

West of the Continental Divide, February mountain and valley precipitation was 43 percent of average and 46 percent of last year, and water year precipitation was 79 percent of average and 55 percent of last year. East of the Continental Divide, February mountain and valley precipitation was 52 percent of average and 55 percent of last year, and water year precipitation was 84 percent of average and 59 percent of last year.

RIVER BASIN	FEBRUARY % OF AVERAGE	WATER YEAR % OF AVERAGE
COLUMBIA	43	79
KOOTENAI	47	82
FLATHEAD	41	77
UPPER CLARK FORK	36	72
BITTERROOT	45	86
LOWER CLARK FORK	46	76
MISSOURI	54	83
JEFFERSON	86	109
MADISON	67	92
GALLATIN	63	84
MISSOURI MAINSTEM	57	83
SMITH-JUDITH-MUSSELSHELL	39	72
SUN-TETON-MARIAS	18	68
MILK	40	69
ST. MARY	37	77
YELLOWSTONE	60	94
UPPER YELLOWSTONE	46	89
LOWER YELLOWSTONE	74	100
WIND	76	93
SHOSHONE	47	103
BIGHORN	106	101

Reservoirs

Major reservoir storage across the state was 117 percent of average and 127 percent of last year. West of the Continental Divide, reservoirs were 121 percent of average and 137 percent of last year. East of the Continental Divide, reservoirs were 110 percent of average and 110 percent of last year.

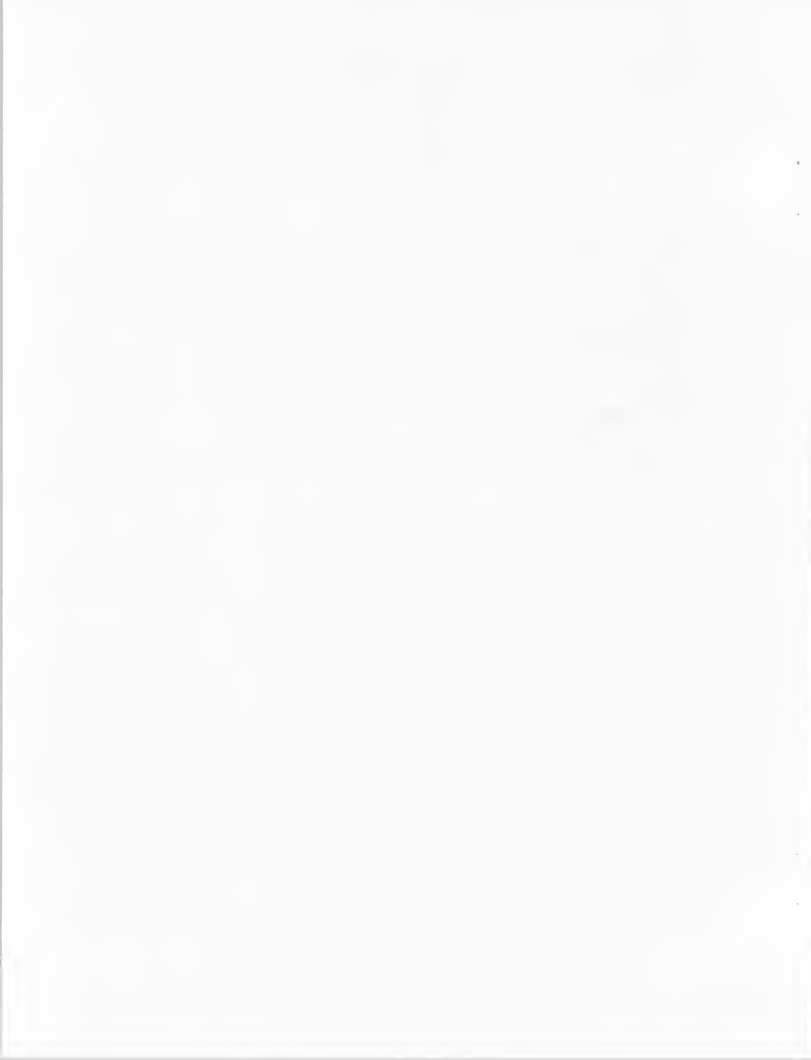
RIVER BASIN	% OF AVERAGE	% OF LAST YEAR
COLUMBIA	121	137
KOOTENAI	163	180
FLATHEAD	96	113
UPPER CLARK FORK	113	108
BITTERROOT	77	92
LOWER CLARK FORK	110	112
MISSOURI	114	116
JEFFERSON	115	104
MADISON	107	110
GALLATIN	208	--
MISSOURI MAINSTEM	108	122
SMITH-JUDITH-MUSSELSHELL	138	133
SUN-TETON-MARIAS	125	108
MILK	118	101
ST. MARY	111	103
YELLOWSTONE	104	111
UPPER YELLOWSTONE	106	111
LOWER YELLOWSTONE	104	111

Streamflow

Streamflow forecasts across Montana were 77 percent of average and 54 percent of last years forecasts. West of the Continental Divide, streamflows are forecast to be 74 percent of average and 55 percent of last years forecasts. East of the Continental Divide, streamflows are forecast to be 82 percent of average and 57 percent of last years forecasts. See individual river basin reports for details.

RIVER BASIN	FORECASTS	
	% OF AVERAGE	FORECASTS % OF LAST YEAR
COLUMBIA	74	55
KOOTENAI	78	68
FLATHEAD	73	55
UPPER CLARK FORK	69	46
BITTERROOT	80	54
LOWER CLARK FORK	72	51
MISSOURI	79	53
JEFFERSON	88	56
MADISON	87	59
GALLATIN	89	59
MISSOURI MAINSTEM	80	50
SMITH-JUDITH-MUSSELSHELL	78	54
SUN-TETON-MARIAS	73	53
MILK	58	43
ST. MARY	78	63
YELLOWSTONE	89	56
UPPER YELLOWSTONE	87	55
LOWER YELLOWSTONE	91	57

NOTE: The FORECAST AS % OF LAST YEAR column above, is this years forecast as a percent of last years forecast, not of what actually occurred.



Surface Water Supply Index

The Surface Water Supply Index (SWSI) is a measure of available surface water availability for the spring and summer months. Water users that rely on mountain precipitation can use the index to evaluate seasonal surface water supplies. The SWSI accounts for mountain snowpack, mountain precipitation, streamflow, reservoir storage, and soil moisture.

SWSI RATING	SURFACE WATER CONDITION
+3.0 to +4.0	Extremely Wet
+2.0 to +3.0	Moderately Wet
+1.0 to +2.0	Slightly Wet
-1.0 to +1.0	Near Average
-1.0 to -2.0	Slightly Dry
-2.0 to -3.0	Moderately Dry
-3.0 to -4.0	Extremely Dry

SWSI's on March 1, were ranging from +0.7 to -3.1 statewide. West of the Continental Divide, SWSI's were ranging from +0.3 to -2.9 and east of the Continental Divide from +0.7 to -3.1.

SWSI

Basin

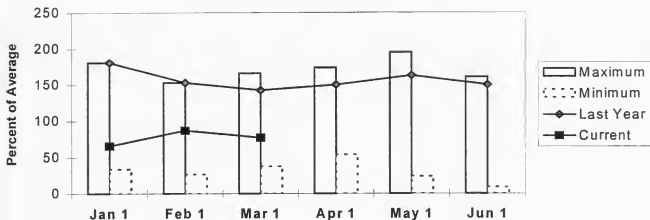
-2.4	Kootenai River at Ft. Steele (Kootenai in Canada)
-1.3	Tobacco River
-1.4	Kootenai Ft. Steele to Libby Dam
+0.3	Kootenai River below Libby Dam
-2.8	Fisher River
-1.8	Yaak River
-2.5	North Fork Flathead River
-2.9	Middle FORK Flathead River
-1.9	South Fork Flathead River
-2.4	Flathead River at Columbia Falls
-2.5	Stillwater/Whitefish Rivers
-2.7	Swan River
-2.6	Flathead River at Polson
-2.4	Mission Valley
-2.6	Little Bitterroot River
-2.0	Clark Fork River above Rock Creek
-2.5	Blackfoot River
-2.3	Clark Fork River above Missoula
-1.6	Bitterroot River
-2.1	Clark Fork River below Bitterroot River
-2.4	Clark Fork River below Flathead River
+0.4	Beaverhead River
-0.6	Ruby River
-1.6	Big Hole River
-2.2	Boulder River (Jefferson)
-1.1	Jefferson River
+0.2	Madison River
-0.8	Gallatin River
-0.6	Missouri River above Canyon Ferry
-0.1	Missouri River below Canyon Ferry
-2.4	Smith River
-2.7	Sun River
-3.1	Teton River
-2.7	Birch/Dupuyer Creeks
-2.9	Marias River
-1.7	Musselshell River
+0.2	Missouri River above Ft. Peck
+0.2	Missouri River below Ft. Peck
-2.6	Milk River
-1.4	Yellowstone River above Livingston
-1.9	Shields River
-1.6	Boulder River (Yellowstone)
-1.7	Stillwater River
-1.4	Rock/Red Lodge Creeks
-1.8	Clarks Fork River
-1.5	Yellowstone River above Bighorn River
+0.7	Bighorn River below Bighorn Lake
0.0	Little Bighorn River
-0.5	Yellowstone River below Bighorn River
-0.4	Tongue River
-0.5	Powder River



Kootenai River Basin in Montana

Snowpack conditions in the Kootenai River Basin of Montana and Canada were below average. Snow water content for the Kootenai in Montana was 23 percent below average and 45 percent below last year. Snow water content for the Kootenai in Canada was 29 percent below average and 43 percent below last year.

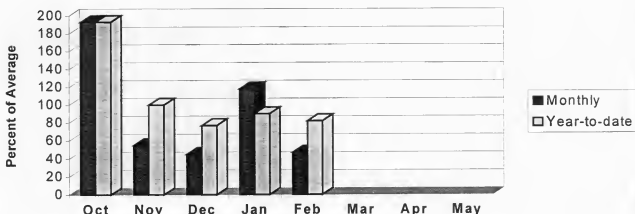
Kootenai Snow Water Equivalent



January maximum swe was established in 1997 and minimum was in 1977; February maximum swe was in 1997 and minimum swe was in 1977; March maximum swe was in 1972 and minimum swe was in 1977; April maximum swe was in 1974 and minimum swe was in 1977; May maximum swe was in 1974 and minimum swe was in 1977; and June maximum swe was in 1974 and minimum swe was in 1992. Average is for the period 1961 through 1990.

Mountain precipitation during February was 52 percent below average and 40 percent below last year. Valley precipitation during February was 88 percent below average and 87 percent below last year. Water year precipitation, beginning October 1, 1997, was 18 percent below average and 40 percent below last year.

Kootenai Precipitation



Lake Koocanusa storage, on the last day of February, was 63 percent above average and 80 percent above last year.

Streamflows, for the period April through July, are forecast to range between 22 and 36 percent below average and 32 percent below last years forecasts.

Surface Water Supply Index (SWSI) was -2.4 in the Kootenai at Ft. Steele (Kootenai in Canada); -1.3 in the Tobacco River; -1.4 in the Kootenai Ft. Steele to Libby Dam; +0.3 in the Kootenai River below Libby Dam; -2.8 in the Fisher River; and -1.8 in the Yaak River.

KOOTENAI RIVER BASIN in Montana
Streamflow Forecasts - March 1, 1998

Forecast Point	Forecast Period	<<----- Drier ----->>		Future Conditions		Wetter ----->>		30-Yr Avg. (1000AF)
		90%	70%	Chance Of Exceeding *		30%	10%	
		(1000AF)	(1000AF)	50% (Most Probable) (1000AF) (% AVG.)		(1000AF)	(1000AF)	
TOBACCO RIVER nr Eureka	APR-JUL	70	85	95	71	105	120	133
	APR-SEP	76	93	105	71	117	134	147
LIBBY RES Inflow (1,2)	APR-JUL	3387	4207	4580	79	4953	5773	5779
	APR-SEP	3970	4933	5370	79	5807	6770	6772
FISHER RIVER near Libby	APR-JUL	118	137	150	64	163	182	234
	APR-SEP	128	147	160	64	173	192	250
YAAK RIVER near Troy	APR-JUL	265	301	325	67	349	385	483
	APR-SEP	278	315	340	67	365	402	505
KOOTENAI at Leona (1,2)	APR-JUL	4092	5122	5590	78	6058	7088	7199
	APR-SEP	4696	5882	6420	78	6958	8144	8275

KOOTENAI RIVER BASIN in Montana Reservoir Storage (1000 AF) - End of February					KOOTENAI RIVER BASIN in Montana Watershed Snowpack Analysis - March 1, 1998			
Reservoir	Usable Capacity	*** Usable Storage ***			Watershed	Number of Data Sites	This Year as % of	
		This Year	Last Year	Avg			Last Yr	Average
LAKE KOOCANUSA	5748.0	3137.0	1745.0	1921.0	KOOTENAI in CANADA	23	57	71
					KOOTENAI MAINTSTEM	2	58	75
					TOBACCO	3	63	80
					FISHER	4	41	64
					YAAK	7	55	83
					KOOTENAI in MONTANA	16	55	77
					ab BONNERS FERRY	39	56	74

* 90%, 70%, 30%, and 10% chances of exceeding are the probabilities that the actual volume will exceed the volumes in the table.

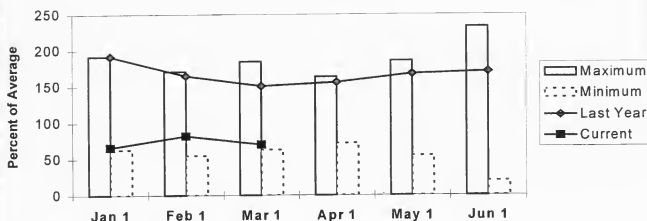
The average is computed for the 1961-1990 base period.

- (1) - The values listed under the 10% and 90% Chance of Exceeding are actually 5% and 95% exceedance levels.
 (2) - The value is natural volume - actual volume may be affected by upstream water management.

Flathead River Basin

Snowpack conditions in the Flathead River Basin of Montana and Canada were below average. Snow water content for the Flathead River Basin in Montana was 30 percent below average and 53 percent below last year. This is the second lowest of record, for the years 1961 through 1997, behind the winter of 1977. Snow water content for the Flathead River Basin in Canada was 25 percent below average and 47 percent below last year.

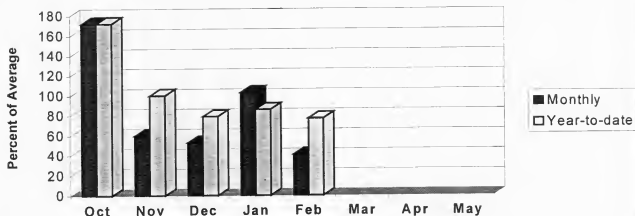
Flathead Snow Water Equivalent



January maximum swe was established in 1997 and minimum was in 1988; February maximum swe was in 1972 and minimum was in 1977; March maximum swe was in 1972 and minimum was in 1977; April maximum swe was in 1972 and minimum was in 1992; May maximum swe was in 1972 and minimum was in 1992; and June maximum swe was in 1974 and minimum was in 1992. Average is for the period 1961 through 1990.

Mountain precipitation during February was 58 percent below average and 59 percent below last year. Valley precipitation during February was 80 percent below average and 78 percent below last year. Water year precipitation, beginning October 1, 1997, was 23 percent below average and 46 percent below last year.

Flathead Precipitation



Reservoir storage, on the last day of February, was 4 percent below average and 13 percent above last year. Combined Camas reservoir storage was 60 percent above average and 4 percent above last year; combined Mission Valley reservoir storage was 4 percent below average and 15 percent above last year; Hungry Horse storage was 7 percent above average and 40 percent above last year; and Flathead Lake storage was 33 percent below average and 37 percent below last year.

Streamflows, for the period April through July, are forecast to range between 26 and 29 percent below average and 45 percent below last years forecasts.

Surface Water Supply Index (SWSI) was -2.5 in the North Fork Flathead River; -2.9 in the Middle Fork Flathead River; -1.9 in the South Fork Flathead River; -2.4 in the Flathead River at Columbia Falls; -2.5 in the Stillwater/Whitefish Rivers; -2.7 in the Swan River; -2.6 in the Flathead River at Polson; -2.4 in the Mission Valley; and -2.6 in the Little Bitterroot River.

FLATHEAD RIVER BASIN
Streamflow Forecasts - March 1, 1998

Forecast Point	Forecast Period	<<----- Drier ----->>		Future Conditions		----- Wetter ----->>		30-Yr Avg. (1000AF)
		90%	70%	50% (Most Probable)		30%	10%	
		(1000AF)	(1000AF)	(1000AF)	(% AVG.)	(1000AF)	(1000AF)	
NF FLATHEAD nr Columbia Falls	APR-JUL	1016	1120	1190	72	1260	1364	1662
	APR-SEP	1125	1241	1320	72	1399	1515	1836
MF FLATHEAD nr West Glacier	APR-JUL	1001	1125	1210	74	1295	1419	1638
	APR-SEP	1088	1226	1320	74	1414	1552	1788
HUNGRY HORSE Reservoir Inflow (1,2)	APR-JUL	1208	1423	1520	74	1617	1832	2051
	APR-SEP	1286	1516	1620	74	1724	1954	2184
FLATHEAD at Columbia Falls (2)	APR-JUL	3396	3768	4020	73	4272	4644	5482
	APR-SEP	3689	4095	4370	73	4645	5051	5960
STILLWATER nr Whitefish	APR-JUL	98	123	140	74	157	182	189
	APR-SEP	105	135	155	74	175	205	209
WHITEFISH nr Kalispell	APR-JUL	55	67	75	72	83	95	104
	APR-SEP	59	73	83	72	93	107	116
SWAN RIVER near Bigfork	APR-JUL	340	385	415	71	445	490	583
	APR-SEP	385	436	470	71	504	555	665
FLATHEAD Lake Inflow (1,2)	APR-JUL	3562	4331	4680	73	5029	5798	6390
	APR-SEP	3857	4691	5070	73	5449	6283	6926

FLATHEAD RIVER BASIN
Reservoir Storage (1000 AF) - End of February

FLATHEAD RIVER BASIN
Watershed Snowpack Analysis - March 1, 1998

Reservoir	Usable Capacity	*** Usable Storage ***			Watershed	Number of Data Sites	This Year as % of	
		This Year	Last Year	Avg			Last Yr	Average
CANAS (4)	45.2	33.7	32.3	21.0	NF FLATHEAD in CANADA	2	53	75
MISSION VALLEY (8)	100.0	36.3	31.7	37.8	NF FLATHEAD in MT.	9	56	77
HUNGRY HORSE	3451.0	2358.0	1681.0	2205.0	MIDDLE FORK FLATHEAD	6	47	66
FLATHEAD LAKE	1791.0	587.7	935.1	881.0	SOUTH FORK FLATHEAD	7	44	70
					STILLWATER-WHITEFISH	10	47	68
					SWAN	7	46	73
					MISSION VALLEY	4	40	69
					LITTLE BITTERROOT-ASHLEY	6	35	56
					JOCKO	5	45	69
					FLATHEAD in MONTANA	40	46	70
					FLATHEAD BASIN	42	47	70

* 90%, 70%, 30%, and 10% chances of exceeding are the probabilities that the actual volume will exceed the volumes in the table.

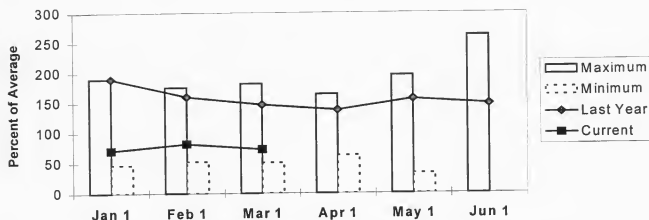
The average is computed for the 1961-1990 base period.

- (1) - The values listed under the 10% and 90% Chance of Exceeding are actually 5% and 95% exceedance levels.
 (2) - The value is natural volume - actual volume may be affected by upstream water management.

Upper Clark Fork River Basin

Snowpack conditions in the Upper Clark Fork River Basin were below average. Snow water content was 27 percent below average and 50 percent below last year.

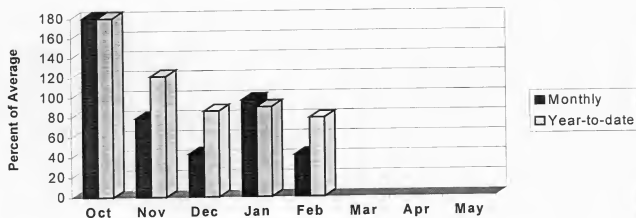
Upper Clark Fork Snow Water Equivalent



January maximum swe was established in 1997 and minimum swe was in 1977; February maximum was in 1972 and minimum swe was in 1977; March maximum swe was in 1972 and minimum swe was in 1977; April maximum swe was in 1972 and minimum swe was in 1994; May maximum swe was in 1972 and minimum swe was in 1977; and June maximum swe was in 1975 and minimum swe was in 1987. Average is for the period 1961 through 1990.

Mountain precipitation during February was 57 percent below average 52 percent below last year. Valley precipitation during February was 64 percent below average and 68 percent below last year. Water year precipitation, beginning October 1, 1997, was 21 percent below average and 44 percent below last year.

Upper Clark Fork Precipitation



Reservoir storage, on the last day of February, was 13 percent above average and 8 percent above last year. Georgetown Lake storage was 7 percent above average and 3 percent below last year; Lower Willow Creek storage was 35 percent above average and 21 percent above last year; and Nevada Creek storage was 38 percent above average and 82 percent above last year.

Streamflows, for the period April through July, are forecast to range between 21 and 37 percent below average and 54 percent below last years forecasts.

Surface Water Supply Index (SWSI) was -2.0 in the Clark Fork River above Rock Creek; -2.5 in the Blackfoot River; and -2.3 in the Clark Fork River above Missoula.

UPPER CLARK FORK RIVER BASIN
Streamflow Forecasts - March 1, 1998

Forecast Point	Forecast Period	<<----- Drier ----->>		Future Conditions		----- Wetter ----->>>		30-Yr Avg. (1000AF)
		90%	70%	Chance Of Exceeding *		30%	10%	
		(1000AF)	(1000AF)	50% (Most Probable) (1000AF)	(% AVG.)	(1000AF)	(1000AF)	
WARM SPRINGS CK at Anaconda (2)	APR-JUL	19.0	26	30	79	35	41	38
	APR-SEP	25	32	37	79	42	49	47
LITTLE BLACKFOOT nr Garrison	APR-JUL	12.5	41	60	72	79	108	83
	APR-SEP	14.2	44	65	73	86	116	89
FLINT CK nr Southern Cross (2)	APR-JUL	4.8	8.4	10.8	76	13.2	16.8	14.2
	APR-SEP	5.0	9.5	12.5	75	15.5	20	16.7
FLINT CK b1 Boulder Ck	APR-JUL	18.3	31	40	70	49	62	57
	APR-SEP	25	40	51	70	62	77	73
LOWER WILLOW CK RES Inflow	APR-JUL	3.2	6.6	9.0	64	11.4	14.8	14.0
	APR-SEP	3.5	7.1	9.5	64	11.9	15.5	14.8
MF ROCK CREEK nr Philipsburg	APR-JUL	33	43	50	76	57	68	66
	APR-SEP	36	47	55	74	63	74	74
ROCK CREEK near Clinton	APR-JUL	132	178	210	71	242	288	296
	APR-SEP	148	200	235	71	270	322	333
NEVADA CREEK near Finn	APR-JUL	4.6	9.0	12.0	63	15.0	19.4	19.1
	APR-SEP	5.2	9.8	13.0	62	16.2	21	21
CLEARWATER nr Clearwater	APR-JUL	103	116	125	73	134	147	172
	APR-SEP	107	121	130	72	139	153	181
BLACKFOOT RIVER near Bonner	APR-JUL	439	526	585	70	644	731	835
	APR-SEP	488	584	650	70	716	812	926
CLARK FORK ab Milltown	APR-JUL	271	413	510	78	607	749	652
	APR-SEP	326	483	590	78	697	854	755
CLARK FORK ab Missoula	APR-JUL	727	949	1100	74	1251	1473	1487
	APR-SEP	845	1086	1250	74	1414	1655	1681

UPPER CLARK FORK RIVER BASIN Reservoir Storage (1000 AF) - End of February					UPPER CLARK FORK RIVER BASIN Watershed Snowpack Analysis - March 1, 1998			
Reservoir	Usable Capacity	*** Usable Storage ***			Watershed	Number of Data Sites	This Year as % of	
	Year	This Year	Last Year	Avg			Last Yr	Average
GEORGETOWN LAKE	31.0	27.5	28.4	25.7	CLARK FORK ab FLINT CRK	15	57	80
LOWER WILLOW CREEK	4.9	2.3	1.9	1.7	FLINT CREEK	6	51	80
NEVADA CREEK	12.6	6.9	3.8	5.0	ROCK CREEK	5	52	80
					CLARK FORK ab BLACKFOOT	23	54	79
					BLACKFOOT	17	45	65
					UPPER CLARK FORK BASIN	37	50	73

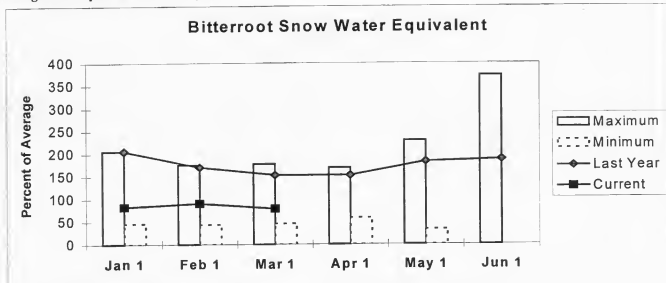
* 90%, 70%, 30%, and 10% chances of exceeding are the probabilities that the actual volume will exceed the volumes in the table.

The average is computed for the 1961-1990 base period.

- (1) - The values listed under the 10% and 90% Chance of Exceeding are actually 5% and 95% exceedance levels.
 (2) - The value is natural volume - actual volume may be affected by upstream water management.

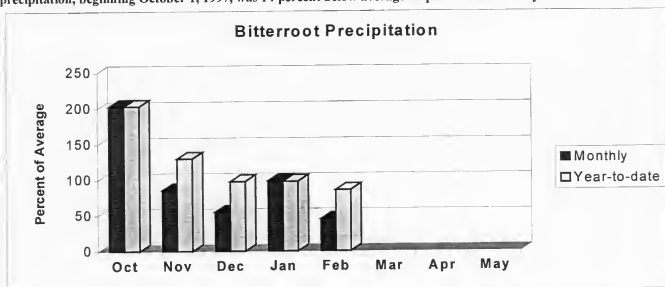
Bitterroot River Basin

Snowpack conditions in the Bitterroot River Basin were below average. Snow water content was 21 percent below average and 48 percent below last year.



January maximum swe was established in 1997 and minimum swe in 1977; February maximum swe was in 1972 and minimum was in 1977; March maximum swe was in 1972 and minimum swe was in 1977; April maximum swe was in 1972 and minimum swe was in 1977; May maximum swe was in 1972 and minimum swe was in 1987; and June maximum swe was 1972 and 1974 and minimum swe was in 1987 and 1992. Average is for the period 1961 through 1990.

Mountain precipitation during February was 55 percent below average and 53 percent below last year. Valley precipitation during February was 56 percent below average and 50 percent below last year. Water year precipitation, beginning October 1, 1997, was 14 percent below average 42 percent below last year.



Reservoir storage, on the last day of February, was 23 percent below average and 8 percent below last year. Painted Rocks Lake storage was estimated to be 81 percent below average and 59 percent below last year and Como storage was 32 percent above average and 9 percent above last year.

Streamflows, for the period April through July, are forecast to range between 18 and 22 percent below average and 54 percent below last years forecasts.

Surface Water Supply Index (SWSI) was -1.6 in the Bitterroot River.

BITTERROOT RIVER BASIN
Streamflow Forecasts - March 1, 1998

Seasonal Forecast								
Forecast Point	Forecast Period	<<----- Drier ----->>		Future Conditions		>>----- Wetter ----->>		30-Yr Avg. (1000AF)
		Chance Of Exceeding *		50% (Most Probable)		30% 10%		
		90% (1000AF)	70% (1000AF)	50% (Most Probable) (1000AF)	(% AVG.)	30% (1000AF)	10% (1000AF)	
WF BITTERROOT nr Conner (2)	APR-JUL	85	109	125	82	141	165	152
	APR-SEP	92	118	135	81	152	178	166
BITTERROOT nr Darby	APR-JUL	293	357	400	82	443	507	491
	APR-SEP	330	396	440	82	484	550	540
ROCK CK nr Darby (2)	APR-JUL	52	60	65	82	70	78	79
	APR-SEP	55	63	68	82	73	81	83
SKALKAGO CK nr Hamilton	APR-JUL	27	32	36	78	40	45	46
	APR-SEP	31	37	41	77	45	51	53
BURNT FORK CK nr Stevensville (2)	APR-JUL	15.3	19.9	23	79	26	31	29
	APR-SEP	18.1	23	27	79	31	36	34
BITTERROOT at Missoula	APR-JUL	811	941	1030	79	1119	1249	1301
	APR-SEP	884	1025	1120	79	1215	1356	1418

BITTERROOT RIVER BASIN Reservoir Storage (1000 AF) - End of February					BITTERROOT RIVER BASIN Watershed Snowpack Analysis - March 1, 1998			
Reservoir	Usable Capacity	*** Usable Storage ***			Watershed	Number of Data Sites	This Year as % of	
		This Year	Last Year	Avg			Last Yr	Average
PAINTED ROCKS LAKE	31.7	2.3	5.6	12.3	WEST FORK BITTERROOT	3	55	82
CONO	34.9	17.3	15.8	13.1	EAST SIDE BITTERROOT	5	51	81
					WEST SIDE BITTERROOT	3	51	77
					BITTERROOT BASIN	10	52	79

* 90%, 70%, 30%, and 10% chances of exceeding are the probabilities that the actual volume will exceed the volumes in the table.

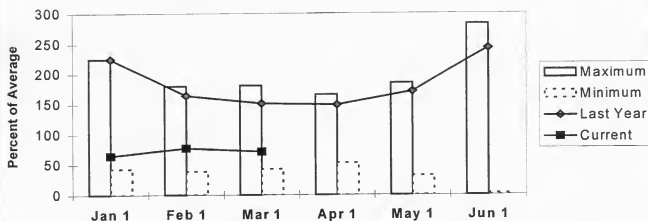
The average is computed for the 1961-1990 base period.

- (1) - The values listed under the 10% and 90% Chance of Exceeding are actually 5% and 95% exceedance levels.
 (2) - The value is natural volume - actual volume may be affected by upstream water management.

Lower Clark Fork River Basin

Snowpack conditions in the Lower Clark Fork River Basin were below average. Snow water content was 28 percent below average and 54 percent below last year. This is the third lowest of record, for the period 1961 through 1997, behind the winters of 1977 and 1981.

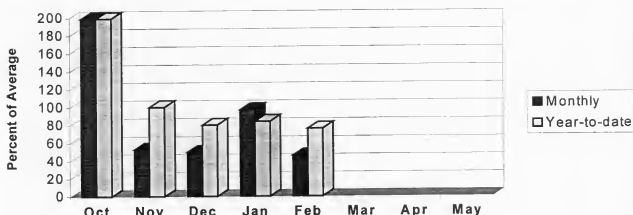
Lower Clark Fork Snow Water Equivalent



January maximum swe was established in 1997 and minimum swe was in 1977; February maximum swe was in 1972 and minimum swe was in 1977; March maximum swe was in 1972 and minimum was in 1977; April maximum swe was in 1972 and minimum swe was in 1981; May maximum swe was in 1972 and minimum swe was in 1977; and June maximum swe was in 1974 and minimum swe was in 1977. Average is for the period 1961 through 1990.

Mountain precipitation during February was 52 percent below average and 46 percent below last year. Valley precipitation during February was 63 percent below average and 46 percent below last year. Water year precipitation, beginning October 1, 1997, was 24 percent below average and 46 percent below last year.

Lower Clark Fork Precipitation



Noxon Rapids storage, on the last day of February, was 10 percent above average and 12 percent above last year.

Streamflows, for the period April through July, are forecast to range between 24 and 37 percent below average and 51 percent below last years forecasts.

Surface Water Supply Index (SWSI) was -2.1 in the Clark Fork River below Bitterroot River and -2.4 in the Clark Fork River below Flathead River.

LOWER CLARK FORK RIVER BASIN
Streamflow Forecasts - March 1, 1998

CLARK FORK FORECAST								
Forecast Point	Forecast Period	<<----- Drier ----->>		Future Conditions		----- Wetter ----->>>		30-Yr Avg. (1000AF)
		Chance Of Exceeding *						
		90% (1000AF)	70% (1000AF)	50% (Most Probable) (1000AF)	(% AVG.)	30% (1000AF)	10% (1000AF)	
CLARK FORK ab Missoula	APR-JUL	727	949	1100	74	1251	1473	1487
	APR-SEP	845	1086	1250	74	1414	1655	1681
CLARK FORK bl Missoula	APR-JUL	1567	1902	2130	76	2358	2693	2788
	APR-SEP	1762	2124	2370	77	2616	2978	3099
CLARK FORK at St. Regis (1)	APR-JUL	1489	2356	2750	75	3144	4011	3686
	APR-SEP	1660	2623	3060	75	3497	4460	4095
CLARK FORK nr Plains (1,2)	APR-JUL	5037	6751	7530	72	8309	10023	10450
	APR-SEP	5529	7414	8270	72	9126	11011	11470
THOMPSON RIVER nr Thompson Falls	APR-JUL	94	121	140	65	159	186	214
	APR-SEP	111	140	160	67	180	209	240
PROSPECT CREEK at Thompson Falls	APR-JUL	56	69	78	63	87	100	123
	APR-SEP	63	76	85	64	94	107	132
CLARK FK at Whitehorse Rpd (1,2)	APR-JUL	5385	7355	8250	70	9145	11115	11730
	APR-SEP	5927	8095	9080	70	10065	12233	12910

LOWER CLARK FORK RIVER BASIN
Reservoir Storage (1000 AF) - End of February

LOWER CLARK FORK RIVER BASIN
Watershed Snowpack Analysis - March 1, 1998

Reservoir	Usable Capacity	*** Usable Storage ***			Watershed	Number of Data Sites	This Year as % of	
		This Year	Last Year	Avg			Last Yr	Average
		Year	Year					
NOXON RAPIDS	335.0	326.7	291.1	298.1	LOWER CLARK FORK	11	46	72
					CLARK FORK BASIN	47	48	72
					CLARK FK ab FEND ORIELLE	91	48	72
					COLUMBIA in MONTANA	98	49	73
					COLUMBIA RIVER BASIN	122	50	73

* 90%, 70%, 30%, and 10% chances of exceeding are the probabilities that the actual volume will exceed the volumes in the table.

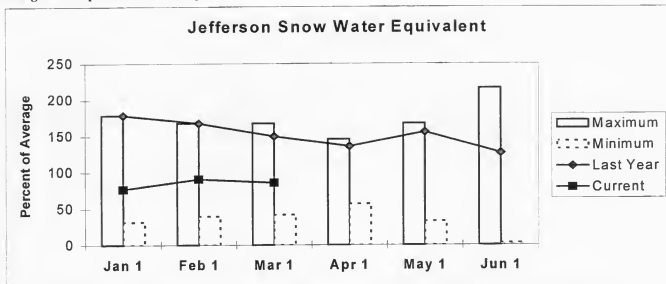
The average is computed for the 1961-1990 base period.

(1) - The values listed under the 10% and 90% Chance of Exceeding are actually 5% and 95% exceedance levels.

(2) - The value is natural volume - actual volume may be affected by upstream water management.

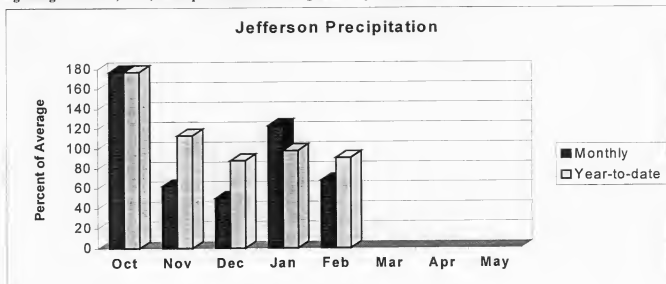
Jefferson River Basin

Snowpack conditions in the Jefferson River Basin were below average. Snow water content was 14 percent below average and 43 percent below last year.



January maximum swe was established in 1997 and minimum swe was in 1977; February maximum swe was in 1997 and minimum was in 1977; March maximum swe was in 1972 and minimum was in 1977; April maximum swe was in 1972 and minimum was in 1977; May maximum swe was in 1975 and minimum swe was in 1977; and June maximum swe was in 1982 and minimum in 1987. Average is for the period 1961 through 1990.

Mountain precipitation during February was 34 percent below average and 22 percent below last year. Valley precipitation during February was 18 percent below average and 6 percent above last year. Water year precipitation, beginning October 1, 1997, was 9 percent below average and 37 percent below last year.



Reservoir storage, on the last day of February, was 15 percent above average and 4 percent above last year. Lima storage was 32 percent above average and 10 percent below last year; Clark Canyon storage was 12 percent above average and 7 percent above last year; and Ruby River storage was 10 percent above average and 8 percent above last year.

Streamflows, for the period April through July, are forecast to range between 9 and 20 percent below average and 44 percent below last years forecasts.

Surface Water Supply Index (SWSI) was +0.4 in the Beaverhead River; -0.6 in the Ruby River; -1.6 in the Big Hole River; -2.2 in the Boulder River; and -1.1 in the Jefferson River as a whole.

JEFFERSON RIVER BASIN
Streamflow Forecasts - March 1, 1998

Forecast Point	Forecast Period	<< Drier		Future Conditions		Wetter >>>		30-Yr Avg. (1000AF)
		90%	70%	Chance Of Exceeding *		30%	10%	
		(1000AF)	(1000AF)	50% (Most Probable) (1000AF)	(% AVG.)	(1000AF)	(1000AF)	
RED ROCK RIVER near Monida (2)	APR-JUL	56	73	85	88	97	114	97
	APR-SEP	57	78	92	88	106	127	105
BEAVERHEAD RIVER near Grant (2)	APR-JUL	79	103	120	91	137	161	132
	APR-SEP	88	119	140	90	161	192	155
BEAVERHEAD RIVER at Barretts (2)	APR-JUL	106	135	155	90	175	204	172
	APR-SEP	129	159	180	89	201	231	203
RUBY RIVER near Alder	APR-JUL	45	63	75	90	87	105	83
	APR-SEP	55	76	90	91	104	125	99
BIG HOLE RIVER near Melrose	APR-JUL	315	434	515	80	596	715	641
	APR-SEP	348	474	560	80	646	772	697
BOULDER RIVER near Boulder	APR-JUL	35	56	70	82	84	105	85
	APR-SEP	38	60	75	82	90	112	91
WILLOW CREEK near Harrison	APR-JUL	4.2	10.2	14.2	80	18.2	24	17.7
	APR-SEP	4.0	11.0	15.8	79	21	28	20
JEFFERSON RIVER near Three Forks (2)	APR-JUL	519	716	850	86	984	1181	985
	APR-SEP	521	729	870	86	1011	1219	1012

JEFFERSON RIVER BASIN Reservoir Storage (1000 AF) - End of February					JEFFERSON RIVER BASIN Watershed Snowpack Analysis - March 1, 1998			
Reservoir	Usable Capacity	*** Usable Storage ***			Watershed	Number of Data Sites	This Year as % of	
	This Year	Lst Year	Avg				Last Yr	Average
LMA	84.0	45.6	50.4	34.5	BEAVERHEAD	15	61	91
CLARK CANYON	255.6	164.5	153.6	146.6	RUBY	10	61	86
RUBY RIVER	38.8	30.0	27.7	27.3	BIGHOLE	15	54	83
					BOULDER	8	55	83
					JEFFERSON RIVER BASIN	40	57	86

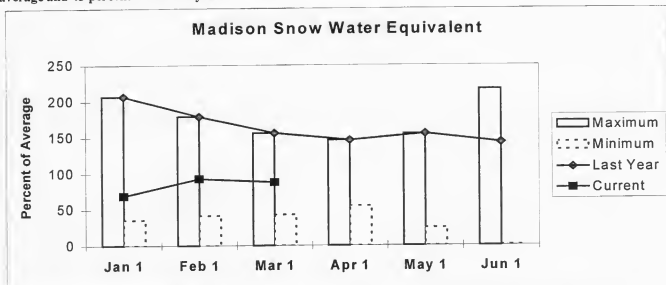
* 90%, 70%, 30%, and 10% chances of exceeding are the probabilities that the actual volume will exceed the volumes in the table.

The average is computed for the 1961-1990 base period.

- (1) - The values listed under the 10% and 90% Chance of Exceeding are actually 5% and 95% exceedance levels.
 (2) - The value is natural volume - actual volume may be affected by upstream water management.

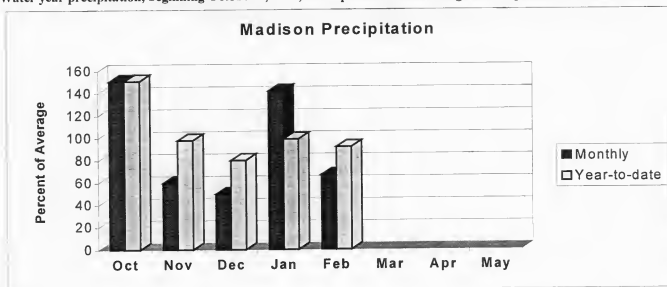
Madison River Basin

Snowpack conditions in the Madison River Basin were well below average. Snow water content was 12 percent below average and 43 percent below last year.



January maximum swe was established in 1997 and minimum swe was in 1977; February maximum swe was in 1997 and minimum was in 1977; March maximum swe was in 1997 and minimum was in 1977; April maximum swe was in 1997 and minimum was in 1977; May maximum swe was in 1997 and minimum swe was in 1977; and June maximum swe was in 1995 and minimum in 1987. Average is for the period 1961 through 1990.

Mountain and valley precipitation during February was 33 percent below average and 27 percent below last year. Water year precipitation, beginning October 1, 1997, was 8 percent below average and 41 percent below last year.



Reservoir storage, on the last day of February, was 7 percent above average and 10 percent above last year. Ennis Lake storage was 14 percent below average and 4 percent above last year and Hebgen Lake storage was 9 percent above average and 10 percent above last year.

Streamflows, for the period April through July, are forecast to range between 12 and 14 percent below average and 41 percent below last years forecasts.

Surface Water Supply Index (SWSI) was +0.2 for the Madison River.

MADISON RIVER BASIN
Streamflow Forecasts - March 1, 1998

Forecast Point	Forecast Period	<<----- Drier ----->>		Future Conditions		----- Wetter ----->>>		30-Yr Avg. (1000AF)
		90%	70%	50% (Most Probable)		30%	10%	
		(1000AF)	(1000AF)	(1000AF)	(% AVG.)	(1000AF)	(1000AF)	
MADISON RIVER near Grayling (2)	APR-JUL	259	298	325	86	352	391	380
	APR-SEP	345	393	425	87	457	505	486
MADISON RIVER near McAllister (2)	APR-JUL	479	539	580	88	621	681	662
	APR-SEP	623	690	735	88	780	847	831

MADISON RIVER BASIN					MADISON RIVER BASIN			
Reservoir Storage (1000 AF) - End of February					Watershed Snowpack Analysis - March 1, 1998			
Reservoir	Usable Capacity	*** This Year	Usable Storage Last Year	*** Avg	Watershed	Number of Data Sites	This Year as % of Last Yr Average	
ERNIS LAKE	41.0	29.2	28.2	34.1	MADISON abv HEBGEN LAKE	6	55	88
HEBGEN LAKE	377.5	271.1	245.7	247.8	MADISON b/w HEBGEN LAKE	11	59	90
					MADISON RIVER BASIN	17	57	89

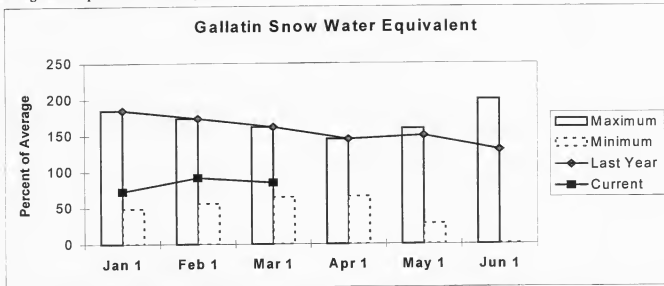
* 90%, 70%, 30%, and 10% chances of exceeding are the probabilities that the actual volume will exceed the volumes in the table.

The average is computed for the 1961-1990 base period.

- (1) - The values listed under the 10% and 90% Chance of Exceeding are actually 5% and 95% exceedance levels.
 (2) - The value is natural volume - actual volume may be affected by upstream water management.

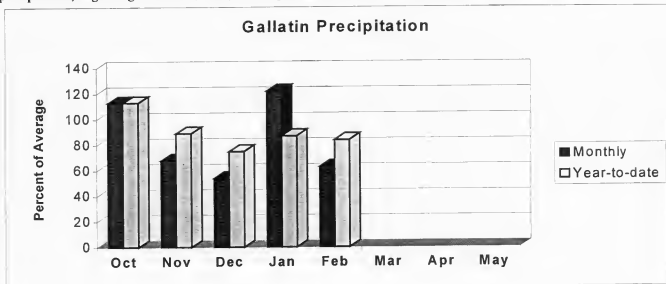
Gallatin River Basin

Snowpack conditions in the Gallatin River Basin were below average. Snow water content was 15 percent below average and 48 percent below last year.



January maximum swe was established in 1997 and minimum swe was in 1966; February maximum swe was in 1997 and minimum was in 1981; March maximum swe was in 1997 and minimum was in 1977 and 1987; April maximum swe was in 1997 and minimum was in 1987; May maximum swe was in 1970 and minimum swe was in 1987; and June maximum swe was in 1975 and minimum in 1987. Average is for the period 1961 through 1990.

Mountain precipitation during February was 39 percent below average and 47 percent below last year. Valley precipitation during February was 13 percent below average and 33 percent below last year. Water year precipitation, beginning October 1, 1997, was 16 percent below average and 43 percent below last year.



Middle Creek storage, on the last day of February, was 108 percent above average.

Streamflows, for the period April through July, are forecast to range between 9 and 13 percent below average and 41 percent below last years forecasts.

Surface Water Supply Index (SWSI) was -0.8 for the Gallatin River.

GALLATIN RIVER BASIN
Streamflow Forecasts - March 1, 1998

GALLATIN RIVER near Gateway								
Forecast Point	Forecast Period	<<----- Drier ----->>		Future Conditions		----- Wetter ----->>>		30-Yr Avg. (1000AF)
		90%	70%	Chance Of Exceeding *		30%	10%	
		(1000AF)	(1000AF)	50% (Most Probable) (1000AF)	(% AVG.)	(1000AF)	(1000AF)	
GALLATIN RIVER near Gateway	APR-JUL	327	371	400	91	429	473	441
	APR-SEP	391	438	470	91	502	549	518
E & W FK HYALITE CREEK near Bozeman	APR-JUL	15.6	18.8	21	91	23	26	23
	APR-SEP	18.4	22	24	92	26	30	26
HYALITE CREEK nr Bozeman (2)	APR-JUL	23	28	32	89	36	41	36
	APR-SEP	28	33	37	88	41	47	42
GALLATIN RIVER at Logan (2)	APR-JUL	294	378	435	87	492	576	498
	APR-SEP	358	446	505	87	564	652	581

GALLATIN RIVER BASIN Reservoir Storage (1000 AF) - End of February					GALLATIN RIVER BASIN Watershed Snowpack Analysis - March 1, 1998			
Reservoir	Usable Capacity	*** Usable Storage ***			Watershed	Number of Data Sites	This Year as % of	
	This Year	Last Year	Avg	Last Yr			Average	
MIDDLE CREEK	10.2	7.9	---	3.8	UPPER GALLATIN	7	53	87
					HYALITE	4	56	83
					BRIDGER	3	47	83
					GALLATIN RIVER BASIN	14	53	85
					MISSOURI HEADWATERS	64	56	86

* 90%, 70%, 30%, and 10% chances of exceeding are the probabilities that the actual volume will exceed the volumes in the table.

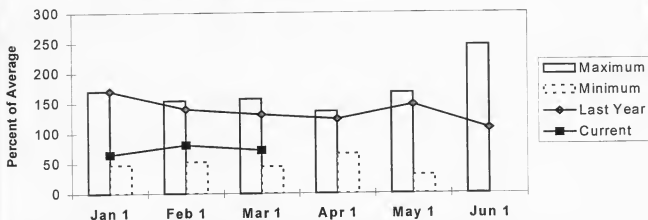
The average is computed for the 1961-1990 base period.

- (1) - The values listed under the 10% and 90% Chance of Exceeding are actually 5% and 95% exceedance levels.
 (2) - The value is natural volume - actual volume may be affected by upstream water management.

Missouri Mainstem River Basin

Snowpack conditions in the Missouri Mainstem River Basin were well below average. Snow water content in the Headwaters Missouri Mainstem was 28 percent below average and 45 percent below last year; the Sun-Teton-Marias were 45 percent below average and 58 percent below last year; and the Smith-Judith-Musselshell were 35 percent below average and 49 percent below last year. The Sun-Teton-Marias and Smith-Judith-Musselshell basins were the second lowest of record, for the period 1961 through 1997, behind the winters of 1977 and 1987 respectively.

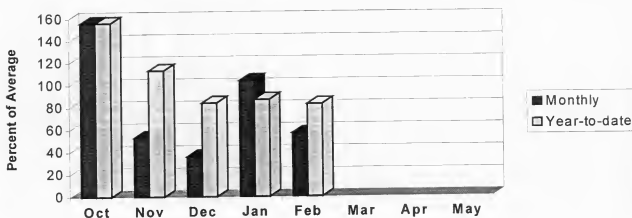
Headwaters Mainstem Snow Water Equivalent



January maximum swe was established in 1997 and minimum swe in 1977; February maximum swe was in 1972 and minimum swe was in 1977; March maximum swe in 1972 and minimum swe was in 1977; April maximum swe was in 1972 and minimum swe was in 1961; May maximum swe was in 1975 and minimum swe was in 1977; and June maximum swe was in 1982 and minimum swe was in 1992. Average is for the period 1961 through 1990.

Mountain precipitation during February was 50 percent below average and 39 percent below last year. Valley precipitation during February was 20 percent above average and 89 percent above last year. These above average percentages are from the storms that hit the eastern plains the end of February. Many stations reported about three times normal for the month just from the last four days of February. Water year precipitation, beginning October 1, 1997, was 17 percent below average and 32 percent below last year.

Headwaters Mainstem Precipitation



Reservoir storage, on the last day of February, was 8 percent above average and 22 percent above last year. Canyon Ferry Lake storage was 8 percent above average and 25 percent above last year; Helena Valley storage was 100 percent of average and 7 percent below last year; Lake Helena storage was 7 percent above average and 2 percent below last year; Hauser & Helena storage was 3 percent above average and the same as last year; Holter Lake storage was 17 percent above average and 1 percent below last year; and Fort Peck Lake storage was 3 percent above average and 1 percent below last year.

Streamflows, for the period April through July, are forecast to range between 16 and 21 percent below average and 50 percent below last years forecasts.

Surface Water Supply Index (SWSI) was -0.6 in the Missouri River above Canyon Ferry; -0.1 in the Missouri River below Canyon Ferry; +0.2 in the Missouri River above Fort Peck; and +0.2 in the Missouri River below Fort Peck.

MISSOURI MAINSTEM RIVER BASIN
Streamflow Forecasts - March 1, 1998

Forecast Point	Forecast Period	<<----- Drier ----->>		Future Conditions		----- Wetter ----->>>		30-Yr Avg. (1000AF)
		Chance Of Exceeding *		Chance Of Exceeding *		Chance Of Exceeding *		
		90% (1000AF)	70% (1000AF)	50% (Most Probable) (1000AF)	(% AVG.)	30% (1000AF)	10% (1000AF)	
MISSOURI RIVER at Toston (2)	APR-JUL	1043	1461	1745	84	2029	2447	2075
	APR-SEP	1450	1755	2050	85	2345	2658	2416
PRICKLY PEAR CREEK near Clancy	APR-JUL	3.4	13.0	19.5	85	26	36	23
	APR-SEP	4.9	15.7	23	85	30	41	27
SUN RIVER at Gibson Dam (2)	APR-JUL	208	284	335	70	386	462	478
	APR-SEP	236	316	370	70	424	504	526
MISSOURI RIVER at Fort Benton (2)	APR-JUL	1259	1992	2490	81	2988	3721	3087
	APR-SEP	1876	2461	3000	82	3539	4156	3678
MARIAS RIVER near Shelby (2)	APR-JUL	192	283	345	77	407	498	447
	APR-SEP	221	313	375	77	437	529	487
MISSOURI RIVER at Virgelle (2)	APR-JUL	1491	2315	2875	80	3435	4259	3595
	APR-SEP	2193	2699	3300	78	3901	4850	4217
MISSOURI RIVER near Landusky (2)	APR-JUL	1622	2502	3100	80	3698	4578	3897
	APR-SEP	2427	3062	3670	80	4278	5450	4580
MISSOURI RIVER below Fort Peck (2)	APR-JUL	1652	2547	3155	79	3763	4658	4015
	APR-SEP	2144	2971	3540	79	4109	5226	4467
LAKE SAKAJAWEA Inflow (2)	APR-JUL	5845	7590	8775	89	9960	11705	9897
	APR-SEP	6921	8921	10100	89	11279	13729	11346

MISSOURI MAINSTEM RIVER BASIN Reservoir Storage (1000 AF) - End of February					MISSOURI MAINSTEM RIVER BASIN Watershed Snowpack Analysis - March 1, 1998			
Reservoir	Usable Capacity	*** Usable Storage ***			Watershed	Number of Data Sites	This Year as % of	
		This Year	Last Year	Avg			Last Yr	Average
CANYON FERRY LAKE	2043.0	1668.0	1335.0	1540.0	MISSOURI MAINSTEM	10	55	72
HELENA VALLEY	9.2	4.2	4.5	4.2	SMITH-JUDITH-MUSSELSHELL	13	51	65
LAKE HELENA	10.4	10.9	11.1	10.2	SUN-TETON-MARIAS	14	42	55
HAUSER & HELENA	61.9	63.1	63.2	61.0	MISSOURI abv FT PECK	36	47	62
HOLTER LAKE	81.9	79.9	81.1	68.2	MILK RIVER BASIN	12	39	42
FORT PECK LAKE (MAF)	18.9	15.1	15.3	14.7	MISSOURI MAINSTEM BASIN	47	47	60

* 90%, 70%, 30%, and 10% chances of exceeding are the probabilities that the actual volume will exceed the volumes in the table.

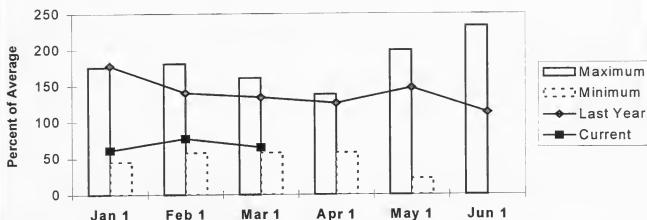
The average is computed for the 1961-1990 base period.

- (1) - The values listed under the 10% and 90% Chance of Exceeding are actually 5% and 95% exceedance levels.
 (2) - The value is natural volume - actual volume may be affected by upstream water management.

Smith-Judith-Musselshell River Basins

Snowpack conditions in the Smith-Judith-Musselshell River Basins were well below average and the second lowest of record, for the period 1961 through 1997, behind the winter of 1987. Snow water content in the Smith River was 27 percent below average and 50 percent below last year; the Judith River was 38 percent below average and 46 percent below last year; and the Musselshell River was 37 percent below average and 55 percent below last year.

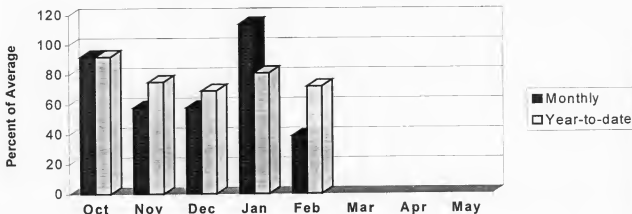
Smith-Judith-Musselshell Snow Water Equivalent



January maximum swe was established in 1997 and minimum swe in 1988; February maximum swe was in 1978 and minimum swe was in 1987; March maximum swe was in 1978 and minimum swe was in 1987; April maximum swe was in 1970 and minimum swe was in 1992; and May maximum swe was in 1970 and minimum swe was in 1987; and June maximum swe was in 1982 and minimum swe was in 1992. Average is for the period 1961 through 1990.

Mountain and valley precipitation during February in the Smith River was 62 percent below average and 56 percent below last year; the Judith River was 60 percent below average and 54 percent below last year; and the Musselshell River was 53 percent below average and 47 percent below last year. Water year precipitation, beginning October 1, 1997, for the three basins combined was 28 percent below average and 44 percent below last year.

Smith-Judith-Musselshell Precipitation



Reservoir storage, on the last day of February, was 38 percent above average and 33 percent above last year. Smith River storage was 33 percent above average and 44 percent above last year; Bair storage was 2 percent below average and 58 percent above last year; Martinsdale storage was 68 percent above average and 61 percent above last year; and Deadman's Basin was 36 percent above average and 25 percent above last year.

Streamflows, for the period April through July, are forecast to range between 17 and 30 percent below average and 46 percent below last years forecasts.

Surface Water Supply Index (SWSI) was -2.4 in the Smith River and -1.7 in the Musselshell River.

SMITH-JUDITH-MUSSELSHELL RIVER BASINS
Streamflow Forecasts - March 1, 1998

Forecast Point	Forecast Period	<<----- Drier ----->>		Future Conditions		----- Wetter ----->>>		30-Yr Avg. (1000AF)
		Chance Of Exceeding *		50% (Most Probable)		30% 10%		
		90% (1000AF)	70% (1000AF)	(1000AF) (% AVG.)		(1000AF)	(1000AF)	
SHEEP CREEK nr White Sulphur Springs	APR-JUL	9.5	12.2	14.0	77	15.8	18.5	18.1
	APR-SEP	11.6	14.5	16.5	79	18.5	21	21
SMITH RIVER blw Eagle Creek	APR-JUL	54	73	85	83	97	116	103
	APR-SEP	66	89	105	85	121	144	124
NF MUSSELSHELL near Delpine	APR-JUL	0.99	2.40	3.35	70	4.30	5.71	4.80
	APR-SEP	1.22	2.78	3.85	69	4.92	6.48	5.60
SF MUSSELSHELL abv Martinsdale	APR-JUL	5.8	24	37	71	50	68	52
	APR-SEP	7.8	27	40	71	53	72	56

SMITH-JUDITH-MUSSELSHELL RIVER BASINS
Reservoir Storage (1000 AF) - End of February

SMITH-JUDITH-MUSSELSHELL RIVER BASINS
Watershed Snowpack Analysis - March 1, 1998

Reservoir	Usable Capacity	*** Usable Storage ***			Watershed	Number of Data Sites	This Year as % of	
		This Year	Last Year	Avg			Last Yr	Average
SMITH RIVER	10.6	8.9	6.2	6.7	SMITH	6	50	73
NEMLAN CREEK		NO REPORT			JUDITH	7	54	62
BAIR	7.0	4.1	2.6	4.2	MUSSELSHELL	6	45	63
MARTINSDALE	23.1	15.8	9.8	9.4	SMITH-JUDITH-MUSSELSHELL	13	51	65
DEADMAN'S BASIN	72.2	62.8	50.3	46.1				

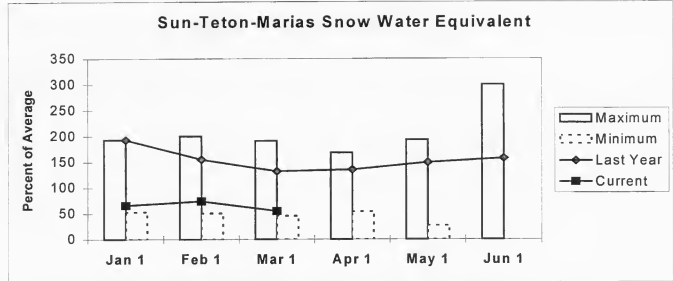
* 90%, 70%, 30%, and 10% chances of exceeding are the probabilities that the actual volume will exceed the volumes in the table.

The average is computed for the 1961-1990 base period.

- (1) - The values listed under the 10% and 90% Chance of Exceeding are actually 5% and 95% exceedance levels.
(2) - The value is natural volume - actual volume may be affected by upstream water management.

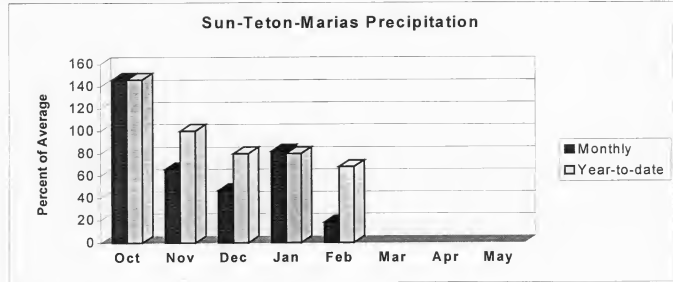
Sun-Teton-Marias River Basins

Snowpack conditions in the Sun-Teton-Marias River Basins were well below average and the second lowest of record, for the period 1961 through 1977, behind the winters of 1984 and 1977. Snow water content in the Sun River was 46 percent below average and 59 percent below last year; the Teton River was 46 percent below average and 57 percent below last year; and the Marias River was 44 percent below average and 58 percent below last year.



January maximum swe was established in 1997 and minimum swe was in 1988; February maximum swe was in 1972 and minimum swe was in 1977; March maximum swe was in 1972 and minimum swe was in 1984; April maximum swe was in 1972 and minimum swe was in 1984; May maximum swe was in 1972 and minimum swe was in 1977; and June maximum was in 1982 and minimum swe was in 1992. Average is for the period 1961 through 1990.

Mountain and valley precipitation during February in the Sun River was 76 percent below average and 61 percent below last year; the Teton River was 80 percent below average and 77 percent below last year; and the Marias River was 84 percent below average and 79 percent below last year. Water year precipitation, beginning October 1, 1997, for the three combined basins was 32 percent below average and 44 percent below last year.



Reservoir storage, on the last day of February, was 25 percent above average and 8 percent above last year. Gibson storage was 9 percent below average and 24 percent above last year; Pishkun storage was 10 percent above average and 1 percent above last year; Willow Creek storage was 41 percent above average and 272 percent above last year; Lower Two Medicine Lake storage was 72 percent above average and 198 percent above last year; Four Horns Lake storage was 13 percent below average and 11 percent below last year; Swift storage was 6 percent above average and 21 percent above last year; Lake Frances storage was 5 percent above average and 3 percent above last year; and Lake Elwell (Tiber) storage was 31 percent above average and 4 percent above last year.

Streamflows, for the period April through July, are forecast to range between 23 and 30 percent below average and 47 percent below last years forecasts.

Surface Water Supply Index (SWSI) was -2.7 in the Sun River; -3.1 in the Teton River; -2.7 in the Birch/Dupuyer Creeks; and -2.9 in the Marias River.

SUN-TETON-MARIAS RIVER BASINS
Streamflow Forecasts - March 1, 1998

Forecast Point	Forecast Period	<<===== Drier =====		Future Conditions		===== Wetter =====>>>		30-Yr Avg. (1000AF)
		Chance Of Exceeding *						
		90% (1000AF)	70% (1000AF)	50% (Most Probable) (1000AF)	(% AVG.)	30% (1000AF)	10% (1000AF)	
SUN RIVER at Gibson Dam (2)	APR-JUL	208	284	335	70	386	462	478
	APR-SEP	236	316	370	70	424	504	526
TWO MEDICINE RIVER near Browning (2)	APR-JUL	78	124	155	72	186	232	215
	APR-SEP	88	134	165	72	196	242	228
BADGER CREEK near Browning (2)	APR-JUL	44	64	77	74	90	110	104
	APR-SEP	54	75	89	74	103	124	120
SWIFT RESERVOIR Inflow near Dupuyer	APR-JUL	27	42	52	77	62	77	68
	APR-SEP	35	51	61	76	72	87	80
DUPUYER CREEK near Valier	APR-JUL	0.7	5.0	11.0	71	17.0	26	15.5
	APR-SEP	0.5	5.8	12.1	70	18.4	28	17.4
CUT BANK CREEK at Cut Bank	APR-JUL	39	54	64	74	74	89	87
	APR-SEP	44	60	70	73	81	96	96
MARIAS RIVER near Shelby (2)	APR-JUL	192	283	345	77	407	498	447
	APR-SEP	221	313	375	77	437	529	487

SUN-TETON-MARIAS RIVER BASINS
Reservoir Storage (1000 AF) - End of February

SUN-TETON-MARIAS RIVER BASINS
Watershed Snowpack Analysis - March 1, 1998

Reservoir	Usable Capacity ¹	*** Usable Storage ***			Watershed	Number of Data Sites	This Year as % of	
		This Year	Last Year	Avg			Last Yr	Average
GIBSON	99.1	43.3	35.0	47.5	SUN	7	42	54
FISHKUN	32.0	19.4	19.3	17.6	TETON	4	43	54
WILLOW CREEK	32.2	30.5	8.2	21.7	MARIAS	6	42	56
LOWER TWO MEDICINE LAKE	11.9	11.9	4.0	6.9	SUN-TETON-MARIAS	14	42	55
FOUR HORNS LAKE	19.2	10.9	12.3	12.5				
SWIFT	30.0	17.4	14.4	16.4				
LAKE FRANCES	112.0	73.5	71.6	69.7				
LAKE ELMELL (TIBER)	1347.0	759.4	726.9	580.2				

* 90%, 70%, 30%, and 10% chances of exceeding are the probabilities that the actual volume will exceed the volumes in the table.

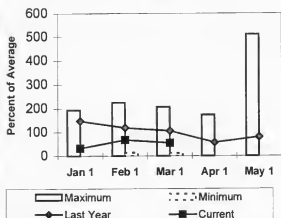
The average is computed for the 1961-1990 base period.

- (1) - The values listed under the 10% and 90% Chance of Exceeding are actually 5% and 95% exceedance levels.
 (2) - The value is natural volume - actual volume may be affected by upstream water management.

St. Mary and Milk River Basins

Snowpack conditions in the St. Mary were below average and in the Milk of Montana and Canada were well below average. Snow water content in the St. Mary was 22 percent below average and 46 percent below last year; in the Bearpaw Mountains was 45 percent below average and 39 percent below last year; and in the Cypress Hills (Alberta Canada) was 73 percent below average and 78 percent below last year.

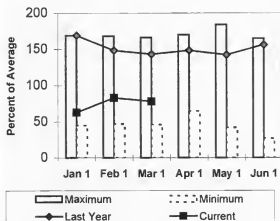
Bearpaw Mountains Snow Water Equivalent



Bearpaw - January maximum swe was established in 1978 and minimum swe was in 1981; February maximum swe was 1978 and minimum was in 1973; March maximum swe was 1978 and minimum swe was 1981; April maximum swe was in 1975 and minimum swe was in 1983; May maximum swe was 1975 and the minimum has occurred in several years. Average is for the period 1961 through 1990.

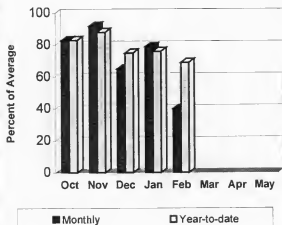
St. Mary - January maximum swe was established in 1997 and minimum swe was in 1988; February maximum swe was in 1972 and minimum swe was in 1977; March maximum swe was in 1972 and minimum swe was in 1977; April maximum swe was in 1972 and minimum swe was in 1992; May maximum swe was in 19972 and minimum swe was in 1977; and June maximum swe was in 1991 and minimum swe was 1992. Average is for the period 1961 through 1990.

St. Mary Snow Water Equivalent

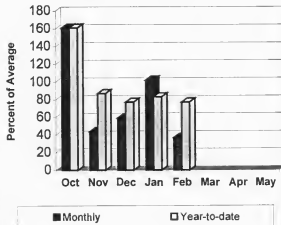


Mountain and valley precipitation during February in the St. Mary River was 63 percent below average and 55 percent below last year and in the Milk River was 60 percent below average and 40 percent below last year. Water year precipitation, beginning October 1, 1997, for the two basins was 26 percent below average and 35 percent below last year.

Milk Precipitation



St. Mary Precipitation



Reservoir storage, on the last day of February, was 12 percent above average and 2 percent below last year. Lake Sherburne storage was 11 percent above average and 3 percent above last year; Fresno storage was 5 percent below average and 28 percent below last year; Beaver Creek storage was 25 percent above average and 22 percent below last year; and Nelson storage was 35 percent above average and 53 percent above last year.

Streamflows, for the period April through July, in the St. Mary are forecast to range between 20 and 23 percent below average and 37 percent below last years forecasts and for the period March through July in the Milk are forecast to range between 24 and 45 percent below average and 57 percent below last years forecasts.

Surface Water Supply Index (SWSI) was -2.6 for the combined St. Mary and Milk River.

ST. MARY and MILK RIVER BASINS
Streamflow Forecasts - March 1, 1998

Forecast Point	Forecast Period	<<===== Drier =====>>>		Future Conditions		===== Wetter =====>>>		30-Yr Avg. (1000AF)
		Chance Of Exceeding *		Chance Of Exceeding *		Chance Of Exceeding *		
		90% (1000AF)	70% (1000AF)	50% (Most Probable) (1000AF)	(% AVG.)	30% (1000AF)	10% (1000AF)	
SWIFTCURRENT CREEK at Sherburne (2)	APR-JUL	67	76	82	77	88	97	107
	APR-SEP	80	89	96	77	103	112	125
ST. MARY RIVER near Babb	APR-JUL	253	284	305	77	326	357	395
	APR-SEP	299	335	360	78	385	421	463
ST. MARY RIVER at US/CAN Border (2)	APR-JUL	292	338	370	80	402	448	462
	APR-SEP	349	400	435	81	470	521	539
MILK RIVER at Western Crossing	MAR-JUL	9.8	19.4	26	59	33	42	44
	MAR-SEP	10.9	21	27	59	34	43	46
MILK RIVER at Eastern Crossing (2)	MAR-JUL	5.6	29	44	55	60	82	80
	MAR-SEP	13.6	36	51	58	66	88	88
BEAVER CREEK near Havre	MAR-JUL	1.2	4.5	7.8	76	11.1	15.9	10.3

ST. MARY and MILK RIVER BASINS					ST. MARY and MILK RIVER BASINS			
Reservoir Storage (1000 AF) - End of February					Watershed Snowpack Analysis - March 1, 1998			
Reservoir	Usable Capacity	*** Usable Storage ***			Watershed	Number of Data Sites	This Year as % of	
		This Year	Last Year	Avg			Last Yr	Average
LAKE SHERBURNE	64.3	29.3	28.4	26.3	ST. MARY	3	54	78
FRESNO	127.0	49.4	68.6	52.0	BEARPAW MOUNTAINS	6	61	55
BEAVER CREEK	3.5	2.5	3.2	2.0	CYPRESS HILLS, CANADA	6	22	27
NELSON	66.8	47.7	31.2	35.3	MILK RIVER BASIN	11	41	44
					ST. MARY & MILK BASINS	15	50	65

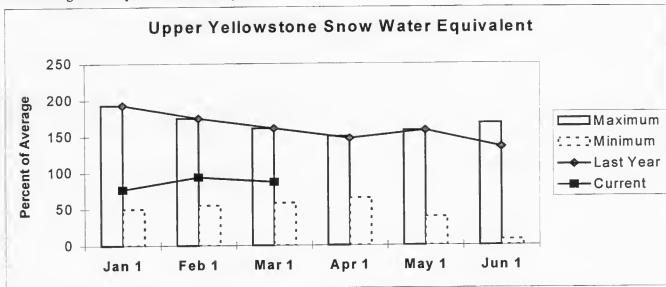
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The average is computed for the 1961-1990 base period.

- (1) - The values listed under the 10% and 90% Chance of Exceeding are actually 5% and 95% exceedance levels.
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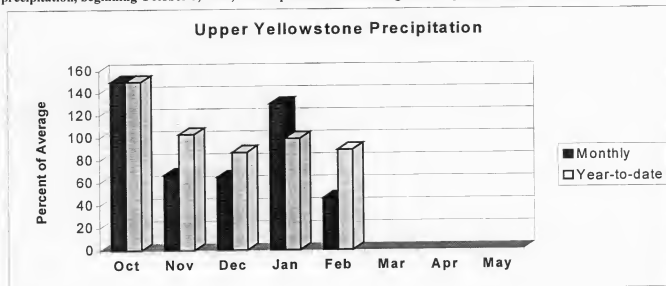
Upper Yellowstone River Basin

Snowpack conditions in the Upper Yellowstone River Basin were below average. Snow water content was 13 percent below average and 46 percent below last year.



January maximum swe was established in 1997 and minimum swe was in 1988; February maximum swe was in 1997 and minimum swe was in 1977; March maximum swe was in 1997 and minimum swe was in 1977; April maximum swe was in 1971 and minimum swe was in 1981; May maximum swe was in 1997 and minimum swe was in 1987; and June maximum swe was 1982 and minimum swe was in 1987 and 1994. Average is for the period 1961 through 1990.

Mountain precipitation during February was 54 percent below average and 58 percent below last year. Valley precipitation during February was 54 percent below average and 43 percent below last year. Water year precipitation, beginning October 1, 1997, was 11 percent below average and 43 percent below last year.



Reservoir storage, on the last day of February, was 6 percent above average and 11 percent above last year. Mystic Lake storage was 43 percent below average and 11 percent below last year and Cooney storage was 24 percent above average and 16 percent above last year.

Streamflows, for the period April through July, are forecast to range between 7 and 17 percent below average and 45 percent below last years forecasts.

Surface Water Supply Index (SWSI) was -1.4 in the Yellowstone River above Livingston; -1.9 in the Shields River; -1.6 in the Boulder River; -1.7 in the Stillwater River; -1.4 in the Rock/Red lodge Creeks; -1.8 in the Clarks Fork River; and -1.5 in the Yellowstone River above Bighorn River.

UPPER YELLOWSTONE RIVER BASIN
Streamflow Forecasts - March 1, 1998

Forecast Point	Forecast Period	<<----- Drier ----->>		Future Conditions		----- Wetter ----->>>		30-Yr Avg. (1000AF)
		Chance Of Exceeding *		Chance Of Exceeding *		Chance Of Exceeding *		
		90% (1000AF)	70% (1000AF)	50% (Most Probable) (1000AF)	(% AVG.)	30% (1000AF)	10% (1000AF)	
YELLOWSTONE at Lake Outlet	APR-JUL	401	469	515	90	561	629	573
	APR-SEP	554	647	710	90	773	866	792
YELLOWSTONE RIVER at Corwin Springs	APR-JUL	1216	1326	1400	87	1474	1584	1609
	APR-SEP	1481	1611	1700	88	1789	1919	1937
YELLOWSTONE RIVER near Livingston	APR-JUL	1375	1515	1610	87	1705	1845	1855
	APR-SEP	1724	1888	2000	89	2112	2276	2241
SHIELDS RIVER near Livingston	APR-JUL	89	119	140	86	161	191	162
	APR-SEP	104	134	155	87	176	206	179
BOULDER RIVER at Big Timber	APR-JUL	217	258	285	85	312	353	335
	APR-SEP	235	277	305	84	333	375	364
WEST ROSEBUD CREEK near Roscoe (2)	APR-JUL	39	47	52	85	57	65	61
	APR-SEP	53	62	67	85	73	81	79
STILLWATER RIVER nr Absarokee (2)	APR-JUL	322	407	465	93	523	608	498
	APR-SEP	404	491	550	93	609	696	593
CLARKS FORK RIVER near Belfry	APR-JUL	342	401	440	83	479	538	532
	APR-SEP	384	444	485	82	526	586	590
COONEY RESERVOIR INFLOW (2)	APR-JUL	11.6	29	40	85	52	68	47
	APR-SEP	21	38	49	86	60	77	57
YELLOWSTONE RIVER at Billings (2)	APR-JUL	2415	2838	3125	87	3412	3835	3577
	APR-SEP	3242	3584	3890	92	4196	4548	4211

UPPER YELLOWSTONE RIVER BASIN Reservoir Storage (1000 AF) - End of February					UPPER YELLOWSTONE RIVER BASIN Watershed Snowpack Analysis - March 1, 1998			
Reservoir	Usable Capacity	*** Usable Storage ***			Watershed	Number of Data Sites	This Year as % of	
		This Year	Last Year	Avg			Last Yr	Average
MYSTIC LAKE	21.0	3.3	3.7	5.8	YELLOWSTONE ab LIVINGSTON	17	54	89
COONEY	27.4	19.1	16.5	15.4	SHIELDS	5	46	83
					BOULDER-STILLWATER	4	53	82
					CLARK'S FORK-ROCK CREEK	13	58	88
					UPPER YELLOWSTONE RIVER	35	54	87

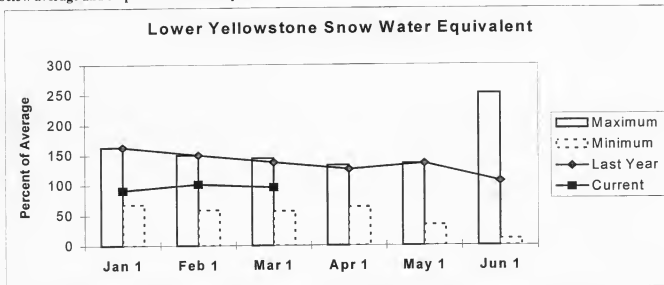
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The average is computed for the 1961-1990 base period.

- (1) - The values listed under the 10% and 90% Chance of Exceeding are actually 5% and 95% exceedance levels.
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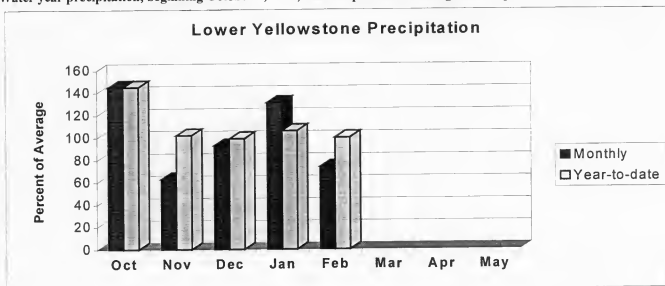
Lower Yellowstone River Basin

Snowpack conditions in the Lower Yellowstone River Basin were near average. Snow water content was 4 percent below average and 30 percent below last year.



January maximum swe was established in 1997 and minimum swe was in 1981; February maximum swe was in 1997 and minimum swe was in 1981; March maximum swe was in 1986 and minimum swe was in 1977; April maximum swe was in 1986 and minimum swe was in 1981; May maximum swe was in 1997 and minimum swe was in 1981; and June maximum swe was in 1995 and minimum swe was in 1994. Average is for the period 1961 through 1990.

Mountain and valley precipitation during February was 26 percent below average and 20 percent below last year. Water year precipitation, beginning October 1, 1997, was 100 percent of average and 27 percent below last year.



Reservoir storage, on the last day of February, was 4 percent above average and 11 percent above last year. Bighorn Lake storage was 7 percent above average and 14 percent above last year and Tongue River was 77 percent below average and 70 percent below last year. The Tongue River Reservoir is being held low due to construction work at the dam.

Streamflows, for the period April through July, are forecast to range between 6 and 27 percent below average and 57 percent below last years forecasts.

Surface Water Supply Index (SWSI) was +0.7 in the Bighorn River below Bighorn Lake; 0.0 in the Little Bighorn River; -0.5 in the Yellowstone River below Bighorn River; -0.4 in the Tongue River; and -0.5 in the Powder River.

LOWER YELLOWSTONE RIVER BASIN
Streamflow Forecasts - March 1, 1998

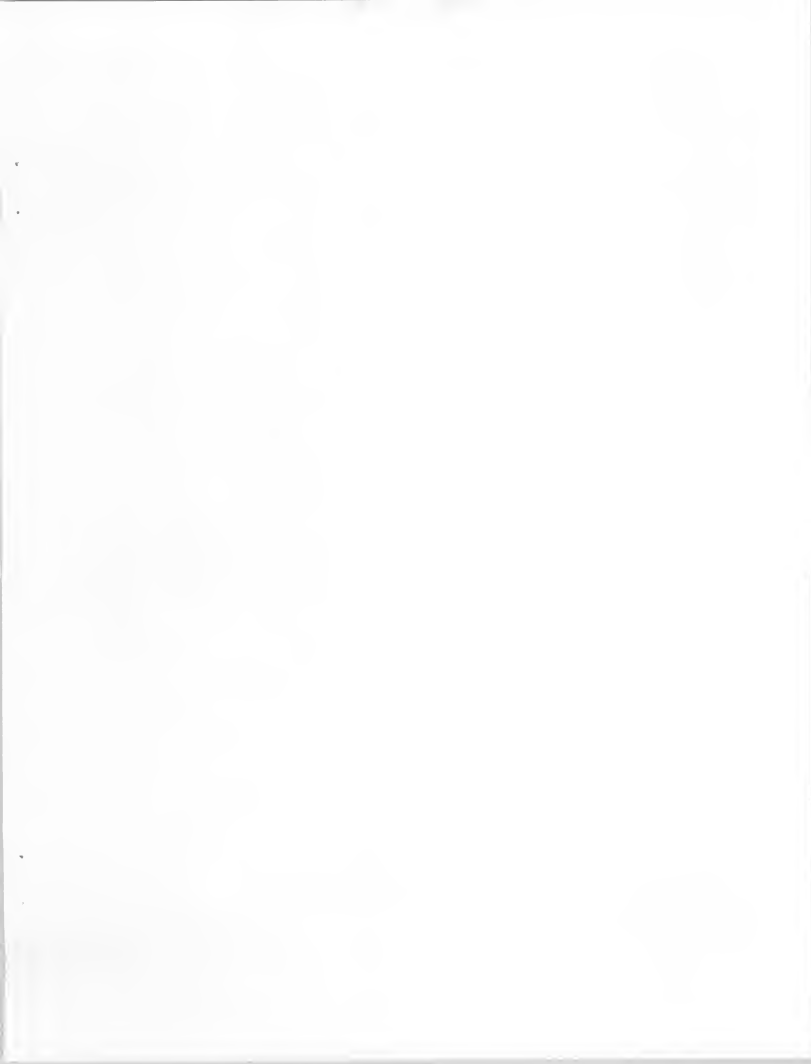
Forecast Point	Forecast Period	<<----- Drier ----->>		Future Conditions		Wetter ----->>		30-Yr Avg. (1000AF)
		90%	70%	50% (Most Probable)		30%	10%	
		(1000AF)	(1000AF)	(1000AF) (% AVG.)		(1000AF)	(1000AF)	
YELLOWSTONE RIVER at Billings (2)	APR-JUL	2415	2838	3125	87	3412	3835	3577
	APR-SEP	3242	3584	3890	92	4196	4548	4211
BIGHORN RIVER nr St. Xavier (2)	APR-JUL	944	1263	1480	90	1697	2016	1645
	APR-SEP	1166	1525	1765	98	2005	2314	1794
LITTLE BIGHORN RIVER nr Hardin	APR-JUL	48	88	115	82	142	182	140
	APR-SEP	53	99	130	83	161	207	157
TONGUE RIVER stateline nr Decker (2)	APR-JUL	127	180	215	94	250	303	230
	APR-SEP	110	203	240	94	277	335	256
YELLOWSTONE RIVER at Miles City (2)	APR-JUL	3549	4473	5100	94	5727	6651	5431
	APR-SEP	4397	5191	5900	94	6609	7286	6281
POWDER RIVER at Moorhead	APR-JUL	83	129	160	76	191	237	211
	APR-SEP	58	144	175	75	206	309	232
POWDER RIVER near Locate	APR-JUL	98	150	185	73	220	272	252
	APR-SEP	58	155	200	73	245	362	276
YELLOWSTONE RIVER nr Sidney (2)	APR-JUL	3651	4722	5450	92	6178	7249	5925
	APR-SEP	4565	5455	6350	93	7245	8109	6814

LOWER YELLOWSTONE RIVER BASIN Reservoir Storage (1000 AF) - End of February					LOWER YELLOWSTONE RIVER BASIN Watershed Snowpack Analysis - March 1, 1998			
Reservoir	Usable Capacity	*** Usable Storage ***			Watershed	Number of Data Sites	This Year as % of	
		This Year	Last Year	Avg			Last Yr	Average
BIGHORN LAKE	1356.0	867.6	762.4	810.4	WIND RIVER (Wyoming)	19	67	100
TONGUE RIVER	68.0	7.0	23.1	30.1	SHOSHONE RIVER (Wyoming)	6	55	88
					BIGHORN RIVER (Wyoming)	19	65	92
					LITTLE BIGHORN (Wyoming)	3	87	97
					TONGUE RIVER (Wyoming)	9	86	98
					POWDER RIVER (Wyoming)	8	73	95
					LOWER YELLOWSTONE RIVER	46	69	96
					YELLOWSTONE BASIN	76	62	92

* 90%, 70%, 30%, and 10% chances of exceeding are the probabilities that the actual volume will exceed the volumes in the table.

The average is computed for the 1961-1990 base period.

- (1) - The values listed under the 10% and 90% Chance of Exceeding are actually 5% and 95% exceedance levels.
 (2) - The value is natural volume - actual volume may be affected by upstream water management.





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Montana
Basin Outlook Report
Natural Resources Conservation Service
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